

## Rehabilitation Protocol for Posterior Bankart Repair

This protocol is intended to guide clinicians through the post-operative course for posterior bankart repair. This protocol is time based (dependent on tissue healing) as well as criterion based. Specific intervention should be based on the needs of the individual and should consider exam findings and clinical decision making. The timeframes for expected outcomes contained within this guideline may vary based on surgeon's preference, additional procedures performed, and/or complications. If a clinician requires assistance in the progression of a post-operative patient, they should consult with the referring surgeon.

The interventions included within this protocol are not intended to be an inclusive list. Therapeutic interventions should be included and modified based on the progress of the patient and under the discretion of the clinician.

### Considerations for the Post-operative Posterior Bankart Repair

Many different factors influence the post-operative posterior bankart repair rehabilitation outcomes, including pre-operative tissue quality, shoulder range of motion, arm strength, and function. Other individual considerations include patient age and co-morbidities, such as: increased BMI, smoking, and diabetes. It is recommended that clinicians collaborate closely with the referring physician regarding specific range of motion or loading guidelines for each individual case.

If the patient develops a fever, unresolving numbness/tingling, excessive drainage from the incision, uncontrolled pain, or any other symptoms you have concerns about contact the referring physician.

### PHASE I: IMMEDIATE POST-OP (0-4 WEEKS AFTER SURGERY)

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| <b>Rehabilitation Goals</b> | <ul style="list-style-type: none"> <li>Allow healing of repaired capsule</li> <li>Initiate early protected and restricted range of motion (ROM)</li> <li>Decrease pain/inflammation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Sling</b>                | <ul style="list-style-type: none"> <li>Use of sling as instructed by your surgeon, typically 4-6 weeks</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Precautions</b>          | <ul style="list-style-type: none"> <li>No internal rotation</li> <li>No horizontal adduction</li> <li>No upper extremity weight bearing</li> <li>No overhead activities</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Interventions</b>        | <p><i>Pain/swelling management</i></p> <ul style="list-style-type: none"> <li>Ice, compression, and modalities as needed</li> </ul> <p><i>Manual therapy</i></p> <ul style="list-style-type: none"> <li>Grade 1-2 traction and inferior glides in loose packed position to help manage pain and muscle guarding</li> </ul> <p><i>Passive Range of Motion</i></p> <ul style="list-style-type: none"> <li><a href="#">Supine external rotation</a> to tolerance</li> <li><a href="#">Supine forward elevation</a> (limited to 120 deg)</li> <li><a href="#">Pendulums</a></li> </ul> <p><i>Strengthening</i></p> <ul style="list-style-type: none"> <li><a href="#">Isometrics: Internal</a> and <a href="#">external rotation</a> in neutral, <a href="#">flexion</a>, <a href="#">extension</a> and <a href="#">abduction</a></li> <li><a href="#">Rhythmic stabilization</a> and proprioceptive exercises with PT</li> <li><a href="#">Scapular retraction</a></li> <li><a href="#">Ball squeeze exercise</a></li> </ul> |

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| <b>Criteria to Progress</b> | <ul style="list-style-type: none"> <li>• PROM shoulder flexion to 90 deg</li> <li>• Compliant with post-op precautions</li> <li>• No complications in initial phase</li> </ul> |
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## **PHASE II: INTERMEDIATE POST-OP (5-6 WEEKS AFTER SURGERY)**

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| <b>Rehabilitation Goals</b>                                                    | <ul style="list-style-type: none"> <li>• Gradual increase in ROM</li> <li>• Initiate active assisted/active ROM</li> <li>• Improve strength</li> <li>• Decrease pain/inflammation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Sling</b>                                                                   | <ul style="list-style-type: none"> <li>• Wean from sling</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Precautions</b>                                                             | <ul style="list-style-type: none"> <li>• No internal rotation behind back</li> <li>• No horizontal adduction</li> <li>• No upper extremity weight bearing</li> <li>• No overhead activities</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Additional Interventions</b><br><i>*Continue with Phase I interventions</i> | <p><i>Active Assisted/Active ROM</i></p> <ul style="list-style-type: none"> <li>• <a href="#">IR</a>: to 30 deg in plane of scapula</li> <li>• <a href="#">Flexion</a>: to 140 deg as tolerated</li> <li>• <a href="#">ER</a> to tolerance</li> </ul> <p><i>Strengthening</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Side-lying ER</a></li> <li>• <a href="#">Prone row</a></li> <li>• <a href="#">Prone extension</a></li> <li>• <a href="#">Standing forward flexion to 90 deg</a></li> <li>• <a href="#">Biceps curl</a></li> <li>• Band exercises: <a href="#">ER</a>, <a href="#">IR</a> (IR limited to neutral)</li> </ul> <p><i>Manual Therapy</i></p> <ul style="list-style-type: none"> <li>• Grades 1-3 oscillatory mobs to GH joint. Caution not to over-stress repaired structures</li> </ul> |
| <b>Criteria to Progress</b>                                                    | <ul style="list-style-type: none"> <li>• Shoulder flexion ROM to 120-140 deg</li> <li>• Pain/inflammation controlled</li> <li>• Compliant with post-op precautions</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## **PHASE III: LATE POST-OP (7-12 WEEKS AFTER SURGERY)**

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| <b>Rehabilitation Goals</b>                                                       | <ul style="list-style-type: none"> <li>• Gradually restore ROM</li> <li>• Increase strength</li> <li>• Improve neuromuscular control</li> <li>• Enhance proprioception and kinesthesia</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Precautions</b>                                                                | <ul style="list-style-type: none"> <li>• Discharge sling</li> <li>• Continue to avoid excessive/forceful horizontal adduction and internal rotation <ul style="list-style-type: none"> <li>◦ IR behind back to beltline only</li> </ul> </li> <li>• No push-ups</li> </ul>                                                                                                                                                                                                                                                                                                                                          |
| <b>Additional Interventions</b><br><i>*Continue with Phase I-II Interventions</i> | <p><i>Range of Motion/Mobility</i></p> <ul style="list-style-type: none"> <li>• <a href="#">ER @ 90 deg abduction</a> to tolerance</li> <li>• <a href="#">Shoulder flexion</a> to tolerance</li> <li>• <a href="#">IR in plane of scapula</a> to 60 deg</li> <li>• <a href="#">IR @ 90 deg abduction</a> to 30-45 deg by week 10 <ul style="list-style-type: none"> <li>◦ Progress gradually with caution to 60-65 deg by week 12</li> </ul> </li> <li>• <a href="#">Pulleys</a></li> <li>• <a href="#">Wall slides</a></li> <li>• <a href="#">Hands-behind-head stretch</a></li> </ul> <p><i>Strengthening</i></p> |

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|                             | <ul style="list-style-type: none"> <li>Band exercises: <a href="#">Dynamic hug</a>, <a href="#">bilateral ER/'W's</a>, <a href="#">biceps curl</a>, <a href="#">rows</a>, <a href="#">forward serratus punch</a>, <a href="#">diagonal flexion and extension patterns</a>, <a href="#">ER/IR @ 90 deg</a></li> <li><a href="#">Side-lying scaption</a></li> <li><a href="#">Prone 'T's, 'Y's</a></li> <li><a href="#">Standing scaption</a></li> <li><a href="#">Rhythmic stabilization</a> and <a href="#">proprioception drills</a></li> <li><a href="#">Wall push-ups at week 12</a></li> </ul> |
| <b>Criteria to Progress</b> | <ul style="list-style-type: none"> <li>ER @ 90 deg abduction to 85-90 deg, 110-115 deg for throwers</li> <li>IR @ 90 deg abduction to 60-65 deg</li> <li>IR in plane of scapular to 60 deg</li> <li>Shoulder flexion to 165 deg</li> </ul>                                                                                                                                                                                                                                                                                                                                                         |

#### **PHASE IV: TRANSITIONAL (13-20 WEEKS AFTER SURGERY)**

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| <b>Rehabilitation Goals</b>                                                         | <ul style="list-style-type: none"> <li>Protect the ligament repair</li> <li>Regain full range of motion</li> <li>Continue strengthening</li> <li>Gradual return to full activity</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Additional Interventions</b><br><i>*Continue with Phase II-III interventions</i> | <p><i>Range of Motion/Mobility</i></p> <ul style="list-style-type: none"> <li><a href="#">Horizontal adduction stretching</a></li> <li><a href="#">ER @ 90 deg abduction stretching</a></li> <li><a href="#">Full behind back IR</a></li> </ul> <p><i>Strengthening</i></p> <ul style="list-style-type: none"> <li>Initiate weight training with machine resistance: <a href="#">front pull downs</a>, <a href="#">seated row</a>, <a href="#">seated bench press</a>: <b>at week 16</b></li> <li>Closed kinetic chain: <a href="#">ball on wall</a>, <a href="#">push-up progression with unstable surface</a>: <b>at week 20</b></li> <li><a href="#">PNF manual resistance</a> with PT</li> </ul> |
| <b>Criteria to Progress</b>                                                         | <ul style="list-style-type: none"> <li>Full shoulder ROM</li> <li>80% strength of ER and IR compared to contralateral shoulder with dynamometry testing</li> <li>80% or &gt; performance with field testing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

#### **PHASE V: EARLY RETURN TO SPORT (21-28 weeks AFTER SURGERY)**

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| <b>Rehabilitation Goals</b>                                                        | <ul style="list-style-type: none"> <li>Full shoulder strength</li> <li>Unrestricted activities</li> <li>Initiation of interval return to sport training at 28 weeks</li> </ul>                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Additional Interventions</b><br><i>*Continue with Phase II-IV interventions</i> | <p><i>Range of Motion/Mobility</i></p> <ul style="list-style-type: none"> <li>Soft tissue stretching to restore or maintain full shoulder ROM</li> </ul> <p><i>Strengthening</i></p> <ul style="list-style-type: none"> <li>Plyometric exercises: <a href="#">rebounder throws</a>, <a href="#">overhead ball dribbles</a>, <a href="#">deceleration catches</a>, <a href="#">standing ball drops</a>, <a href="#">prone 90/90 ball drops</a></li> <li>Progressive weight training involving compound movements and larger muscle groups</li> </ul> |
| <b>Criteria to Progress</b>                                                        | <ul style="list-style-type: none"> <li>90% or &gt; strength of ER and IR compared to contralateral shoulder with dynamometry testing</li> <li>90% or &gt; performance with field testing</li> <li>90% or &gt; on reported outcome measures (DASH, Penn Shoulder Score)</li> </ul>                                                                                                                                                                                                                                                                   |

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| <b>Contact</b> | Please email <a href="mailto:MGHSportsPhysicalTherapy@partners.org">MGHSportsPhysicalTherapy@partners.org</a> with questions specific to this protocol |
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#### References:

Amako M, Arino H, Tsuda Y, Tsuchihara T, Nemoto K. Recovery of Shoulder Rotational Muscle Strength After Arthroscopic Bankart Repair. *Orthopaedic Journal of Sports Medicine*. September 2017. doi:[10.1177/2325967117728684](https://doi.org/10.1177/2325967117728684)

Manske RC, Davies GJ. Postrehabilitation outcomes of muscle power (torque-acceleration energy) in patients with selected shoulder dysfunctions. *Journal of Sports Rehab*. 2003;12(3):181-198.

Reinold MM, Gill TJ, Wilk KE, Andrews JR. Current concepts in the evaluation and treatment of the shoulder in overhead throwing athletes, part 2: injury prevention and treatment. *Sports Health*. 2010;2(2):101-115. doi:10.1177/1941738110362518