



# **Arthroscopic SLAP Lesion Repair**

## *Rehabilitation Guideline*

This rehabilitation program is designed to return the individual to their activities as quickly and safely as possible. It is designed for rehabilitation following Arthroscopic SLAP Lesion Repair. Modifications to this guideline may be necessary dependent on physician specific instruction, location of repair, concomitant injuries or procedures performed. This evidence-based Arthroscopic SLAP Lesion Repair Rehabilitation Guideline is criterion-based; time frames and visits in each phase will vary depending on many factors, including patient demographics, goals and individual progress. This guideline is designed to progress the individual through rehabilitation to full sport/activity participation. The therapist may modify the program appropriately depending on the individual's goals for activity following Arthroscopic SLAP Lesion Repair.

This guideline is intended to provide the treating clinician 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.

## General Guidelines/Precautions:

- Gradual PROM in protective range is performed for the first 4 weeks below 90 degrees of elevation to avoid strain on the labral repair.
- Active Assisted ROM and Isometrics initiated at 4 weeks.
- Active ROM initiated at 6 weeks, per physician.
- Strengthening initiated at 10 weeks (except with Type IV- biceps involved), per physician. Aggressive strengthening of the biceps (elbow flexion or supination) is avoided for 12 weeks.
- If Type IV- Bicep involvement, No isolated biceps contraction (elbow flexion or supination) for 12 weeks.
- If Type IV- Bicep involvement, No lifting or carrying of heaving objects on surgical shoulder for 12 weeks.

# Arthroscopic SLAP Lesion Repair Rehabilitation Guideline (16-24 weeks to expected D/C)

PHASE	SUGGESTED INTERVENTIONS	GOALS/MILESTONES FOR PROGRESSION
<p><b>Phase I</b> Patient Education Phase (pre-operatively)</p> <p>Expected visits: 1-3</p>	<p><b>Discuss:</b> Anatomy, existing pathology, post-op rehab schedule, bracing, and expected progressions post-operatively</p> <p><b>Instruct on Pre-op exercises:</b> Strength and ROM progressions as tolerated.</p> <p><b>Immediate Post-Operative instructions:</b></p> <ul style="list-style-type: none"> <li>Maintain use of sling at all times until physician instructs to d/c</li> </ul>	<p><b>Goals of Phase:</b></p> <ol style="list-style-type: none"> <li>Improve ROM and strength prior to surgery.</li> <li>Appropriate expectation framework for post-operative rehabilitation.</li> </ol> <p><b>Criteria to Advance to Next Phase:</b></p> <ol style="list-style-type: none"> <li>Progress to Phase II post-operatively</li> </ol>
<p><b>Phase II</b> Maximum Protection Phase</p> <p>Weeks 0-2</p> <p>Expected visits: 1-4</p>	<p><b>Specific Instructions:</b></p> <ul style="list-style-type: none"> <li>Maintain use of sling at all times until physician instructs to d/c at approx. 4-6 weeks s/p</li> <li>Sleep in immobilizer. Reclined position is most comfortable with pillow support to the posterior gleno-humeral joint.</li> <li>No carrying or lifting of any objects</li> <li>No excessive stretching or sudden movements</li> <li>No supporting of body weight by hands</li> <li>Keep incisions clean and dry</li> </ul> <p><b>Suggested Treatments:</b></p> <p><b>Modalities:</b> Pain control modalities as indicated</p> <ul style="list-style-type: none"> <li>No heat until 1 week s/p</li> </ul> <p><b>Range of motion:</b></p> <ul style="list-style-type: none"> <li>Wrist &amp; hand AROM</li> <li>PROM (ROM done by therapist) <ul style="list-style-type: none"> <li>Elbow PROM to end ranges to maintain mobility (avoid active biceps contraction)</li> <li>Flexion to 75 degrees by week 2</li> <li>Elevation in scapular plane to 60 deg.</li> <li>ER 0-30 degrees in scapular plane</li> <li>IR to chest wall/45 degrees</li> </ul> </li> </ul> <p><b>Exercise Examples:</b></p> <ul style="list-style-type: none"> <li>Hand gripping exercises</li> </ul>	<p><b>Goals of Phase:</b></p> <ol style="list-style-type: none"> <li>Provide environment of proper healing of repair</li> <li>Prevention of post-operative complications</li> <li>Retard muscle atrophy</li> <li>Improve PROM</li> <li>Diminish pain and inflammation</li> </ol> <p><b>Criteria to Advance to Next Phase:</b></p> <ol style="list-style-type: none"> <li>Patient has met upward limits of PROM for this phase</li> </ol>

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<p><b>Phase III</b> <i>Protected Motion Phase</i></p> <p>Weeks 3-5</p> <p>Expected visits: 6-9</p>	<p><b>Specific Instructions:</b></p> <ul style="list-style-type: none"> <li>• No carrying or lifting of heavy objects</li> <li>• Continue sleep in elevated position with sling until comfortable to lay flat</li> <li>• Continue use of sling until physician discharge (approx. 4-6 weeks)</li> <li>• No biceps strengthening</li> </ul> <p><b>Suggested Treatments:</b></p> <p><b>Modalities:</b> Pain control modalities as needed</p> <p><b>PROM:</b> Continue to progress PROM <i>as tolerated</i></p> <ul style="list-style-type: none"> <li>• Flexion to 145 degrees</li> <li>• Abduction to 90 degrees</li> <li>• ER 30-45 degrees in scapular plane</li> <li>• IR 55-60 degrees in scapular plane</li> </ul> <p><b>AAROM:</b></p> <ul style="list-style-type: none"> <li>• Flexion/Extension progressions within PROM listed above</li> <li>• Shoulder elevation/Abduction progressed as tolerated</li> <li>• ER/IR progressed to 90 degrees of abduction at week 4</li> </ul> <p><b>Manual therapy:</b> maintain pain-free scapula-thoracic joint mobility</p> <p><b>Exercise Examples:</b></p> <ul style="list-style-type: none"> <li>• AAROM: Wand, pendulum or pulleys as tolerated within guidelines above</li> <li>• Submaximal and pain-free shoulder isometrics in scapular plane</li> <li>• Submaximal and pain-free scapular isometrics</li> <li>• Initiate rhythmic stabilization drills for IR/ER and flex/ext</li> <li>• Prone scapular retractions with rowing or extensions</li> </ul>	<p><b>Goals of Phase:</b></p> <ol style="list-style-type: none"> <li>1. Prevent negative effects of immobilization</li> <li>2. Provide environment of proper healing for repair</li> <li>3. Promote dynamic shoulder and scapular stability</li> <li>4. Diminish pain and inflammation</li> </ol> <p><b>Criteria to Advance to Next Phase:</b></p> <ol style="list-style-type: none"> <li>1. Patient has met upward limits of PROM for this phase</li> <li>2. Patient has met upward limits of AAROM for this phase</li> </ol>
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<p><b>Phase IV</b> <i>Motion and Muscle Activation Phase</i></p> <p>Weeks 6-12</p> <p>Expected visits: 12-18</p>	<p><b>Specific Instructions:</b></p> <ul style="list-style-type: none"> <li>• Continue previous exercises</li> <li>• Continue use of ice/heat as needed</li> </ul> <p><b>Suggested Treatments:</b></p> <p><b>PROM:</b> Continue to progress as tolerated</p> <ul style="list-style-type: none"> <li>• Flexion to 180°</li> <li>• ER may be progressed as tolerated to 90 degrees (from scapular plane to 90 deg. abduction)</li> <li>• IR equal to opposite side (may have contralateral differences in overhead athletes)</li> </ul> <p><b>AROM: Initiated week 6 with no resistance to the shoulder</b></p> <ul style="list-style-type: none"> <li>• Flexion with attention to proper scapulo-thoracic control</li> <li>• ER may be progressed as tolerated (from scapular plane to 90 deg. abduction)</li> </ul> <p><b>Exercise Examples:</b></p> <ul style="list-style-type: none"> <li>• Continue with gleno-humeral rhythmic stabilization drills</li> <li>• Continue all stretching exercises</li> <li>• Side lying ER</li> <li>• Initiate throwers ten program with attention to proper scapular control</li> <li>• Weight bearing proprioceptive exercises only after 10 weeks</li> <li>• Biceps strength initiated at 10 weeks</li> <li>• Biceps strength initiated at 12 weeks (when bicep involved in repair)</li> <li>• Strength training progressive external loading after week 10 for all other muscles</li> </ul> <p><b>Other Activities:</b></p> <ul style="list-style-type: none"> <li>• May initiate UBE at 7 weeks with light resistance</li> </ul>	<p><b>Goals of Phase:</b></p> <ol style="list-style-type: none"> <li>1. Full PROM expected by week 10 (90-100 deg. of ER at 90 degrees of abduction)</li> <li>2. Preserve the integrity of the surgical repair</li> <li>3. Increase functional activity without soft tissue irritation</li> <li>4. Decrease pain and inflammation</li> </ol> <p><b>Criteria to Advance to Next Phase:</b></p> <ol style="list-style-type: none"> <li>1. Full and non-painful PROM</li> <li>2. No pain or tenderness</li> <li>3. No increased shoulder irritability with progressive resistive strength training program.</li> <li>4. Clearance by MD to full activity and/or Throwers Program</li> </ol>
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<p><b>Phase V</b> <i>Advanced Strengthening and Eccentric Control Phase</i></p> <p>Weeks 13-24</p> <p>Expected visits: 12-18</p>	<p><b>Specific Instructions:</b> Modifications of certain lifts to avoid stress to repair site:</p> <ul style="list-style-type: none"> <li>• Bench press to neutral, no barbell to begin</li> <li>• No military pressing behind head</li> <li>• No lat pull downs behind head</li> <li>• Consider limiting or modifying back squat</li> <li>• Consider limiting depth for tricep dips</li> </ul> <p><b>Suggested Treatments:</b></p> <ul style="list-style-type: none"> <li>• Continue all strengthening &amp; mobility exercises from prior phase</li> <li>• Encourage HEP progression and compliance</li> <li>• Continue to progress throwing motion as able (especially ER)</li> <li>• Resisted sport activity</li> <li>• Progressive Plyometric activities</li> <li>• Endurance training</li> </ul> <p><b>Exercise Examples: (Refer to Overhead Athlete Rehabilitation Guideline)</b></p> <ul style="list-style-type: none"> <li>• Pre-throwing drills</li> <li>• Progression of total body strengthening program</li> <li>• High speed band exercises</li> <li>• Weight bearing: Push-ups, push up with a plus</li> <li>• Plank progressions</li> <li>• End range rhythmic stabilizations in various phases of throwing motions</li> <li>• PNF patterns with bands, cable column, manual resistance</li> <li>• Plyometrics: trampoline plyos chest pass, side &amp; overhead toss, 90°/90° toss, 90°/90° ball drop</li> </ul> <p><b>Other Activities:</b></p> <ul style="list-style-type: none"> <li>• Begin <b>Interval Throwing Program</b> or appropriate sport specific interval program</li> </ul>	<p><b>Goals of Phase:</b></p> <ol style="list-style-type: none"> <li>1. Establish and maintain full shoulder AROM</li> <li>2. Improve muscular strength, power and endurance</li> <li>3. Maintain shoulder mobility</li> <li>4. Progress back to functional activities</li> <li>5. Ensure proper throwing mechanics with pre-throwing drills to reduce risk for re-injury</li> </ol> <p><b>Criteria to Advance to Next Phase for Overhead Athlete: (Please refer to Overhead Athlete Rehabilitation Guideline)</b></p> <ol style="list-style-type: none"> <li>1. Full and non-painful PROM for overhead athlete:             <ol style="list-style-type: none"> <li>a. Total PROM equal to opposite side for throwers</li> <li>b. Normalized Latissimus Dorsi Length for throwers</li> <li>c. Normalized supine horizontal adduction with scapula stabilized</li> </ol> </li> <li>2. Full and non-painful AROM for overhead athlete:             <ol style="list-style-type: none"> <li>a. Prone 90/90 ER at 85% of supine PROM ER</li> <li>b. Equal back to wall flexion test</li> </ol> </li> <li>3. Muscular strength 75-80% of contralateral side</li> </ol>
<p><b>Phase VI</b> <i>Advanced Movement and Return to Activity Phase</i></p> <p>Months 6-9</p> <p>Depending on staffing models, patients may transition to their athletic trainer during this phase</p>	<p><b>Suggested Criteria for Return to Sport: (Please refer to Upper Extremity Testing Guideline)</b></p> <ol style="list-style-type: none"> <li>1. Successful progression of interval throwing program to 180 ft. with no pain</li> <li>2. Consider throwing mechanics assessment</li> <li>3. ER/IR Ratio &gt;80%             <ol style="list-style-type: none"> <li>a. Hand held dynamometry at 90° abduction</li> <li>b. In neutral rotation</li> </ol> </li> <li>4. Successful completion of Return to Performance Program (if available)</li> </ol>	<p><b>Goals:</b></p> <ol style="list-style-type: none"> <li>1. Progression of interval throwing program to prepare for return to competitive throwing with proper throwing mechanics</li> <li>2. Development of individualized maintenance program in preparation for discontinuation of formal rehabilitation</li> </ol>

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