

Orthopedics

#### **POST-OPERATIVE SHOULDER LATARJET CORACOID TRANSFER GUIDELINES**

The following post-operative shoulder Latarjet guidelines were developed by Hospital for Special Surgery Rehabilitation and are categorized into five phases with the ultimate goal for returning the overhead athlete to full competition. They can be used for patients undergoing a variety of anterior stabilization procedures with attention given to exact location of repair and any concomitant procedures. It is important that full range of motion is restored while respecting soft tissue healing. Classification and progression are both criteria-based and time based due to the healing constraints of the human body. Phases and time frames are designed to give the clinician a general sense of progression.

The rehabilitation program for a Latarjet stabilization procedure emphasizes early, controlled motion to prevent shoulder stiffness and avoid disuse atrophy of distal musculature while respecting post-operative precautions. The program should balance the aspects of tissue healing and appropriate interventions to maximize flexibility, strength, and pain-free performance of functional activities. Cardiovascular endurance, hip and core strengthening should be addressed through the rehabilitation process. The clinician should use their skilled judgment and decision making as the athlete advances as all progression may not be linear.

Jaud from

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### Phase 1: Acute Care Phase

PRECAUTIONS	<ul> <li>Sling for 4 weeks at all times</li> <li>Avoid stress on anterior shoulder joint</li> <li>No forced stretching</li> <li>Avoid painful activities</li> <li>Non Weight Bearing on operative upper extremity</li> </ul>	
ASSESSMENT	<ul> <li>Quick Disabilities of Arm, Shoulder &amp; Hand (Quick DASH)</li> <li>American Shoulder and Elbow Surgeons Shoulder Score (ASES)</li> <li>Numeric Pain Rating Scale (NPRS)</li> <li>PROM</li> <li>Palpation</li> <li>Static scapular assessment (Kibbler Grading)</li> <li>Cervical mobility</li> </ul>	
TREATMENT RECOMMENDATIONS	<ul> <li>Gripping and hand AROM</li> <li>Postural awareness</li> <li>Wrist AROM: flexion/extension/pronation/supination</li> <li>Range of Motion:</li> <li>Week 1: external rotation (ER) to neutral, elevation in scapular plane 60°</li> </ul>	
CRITERIA FOR ADVANCEMENT	<ul> <li>Decreasing discomfort at rest</li> <li>Independent with sling management, or caregiver independent in assisting</li> <li>Independent with ADLs, or caregiver independent in assisting</li> <li>Independent with HEP</li> </ul>	
EMPHASIZE	<ul> <li>Protection of repair</li> <li>Reduction of tissue irritability</li> <li>Prevention of muscle atrophy</li> </ul>	

# **POST-OPERATIVE SHOULDER LATARJET GUIDELINES** Phase 2: Intermediate (Weeks 2-6)

PRECAUTIONS	<ul> <li>Sling for 4 weeks</li> <li>Monitor for shoulder stiffness</li> <li>No forced PROM</li> <li>Avoid undue stress to anterior shoulder joint</li> </ul>		
ASSESSMENT	<ul> <li>PROM</li> <li>Palpation</li> <li>Static/dynamic scapular assessment (Kibbler grading)</li> <li>Cervical mobility</li> <li>Scapular static assessment</li> </ul>		
TREATMENT	ROM Goals – DO NOT FORCE BUT ASSESS FOR STIFFNESS		
	Week 4	<ul> <li>Elevation in scapular plane: 90°</li> <li>ER in scapular plane: 5°-10°</li> <li>Internal rotation (IR) in scapular plane: 30°-45°</li> </ul>	
	Week 6	<ul> <li>Elevation in scapular plane: 90°-100°</li> <li>ER in scapular plane: 15°-20°</li> <li>IR in scapular plane: 50°-60°</li> </ul>	
	Week 6+	<ul> <li>Elevation in scapular plane: 120°-145°</li> <li>ER in scapular plane: 40°-60°</li> <li>IR in scapular plane: 50°-60°</li> </ul>	
	Abduction	<ul> <li>0°-90° first 6 weeks (gentle motion)</li> </ul>	
RECOMMENDATIONS -	Exercises		
	Week 2	Scapular Isometrics = Elbow AROM = Shoulder AAROM	
	Week 3	RC Isometrics Rhythmic stabilization ER/IR with PT	
	Week 4	Continue RC Isometrics Elastic band row	
	Week 5-6	<ul> <li>RC Isotonics if arthroscopic; if open start week 6</li> <li>Scapular strengthening <ul> <li>Prone row, prone extension</li> </ul> </li> </ul>	
CRITERIA FOR ADVANCEMENT	<ul> <li>No pain at rest</li> <li>120° shoulder elevation PROM; 45° ER in scapular plane</li> <li>Tolerance of scapular and RC exercises without discomfort</li> </ul>		
EMPHASIZE	<ul> <li>Reduction of tissue irritability</li> <li>Activation of rotator cuff (RC) and scapular stabilizers</li> </ul>		

# Phase 3: Advanced (Weeks 6-15)

PRECAUTIONS	<ul> <li>No forced PROM</li> <li>Avoid undue stress to anterior shoulder joint</li> <li>No painful activities</li> </ul>	
ASSESSMENT	<ul> <li>PROM</li> <li>AROM</li> <li>Palpation</li> <li>Static/dynamic scapular assessment (Kibbler grading) = Cervical mobility</li> <li>Scapular static/dynamic assessment</li> <li>Grip strength</li> </ul>	
	ROM Goals Week 6-7	<ul> <li>Initiate light and <u>PAIN FREE</u> ER at 90° shoulder abduction</li> <li>Progress to 30°</li> </ul>
	Week 7-9	<ul> <li>Flexion 160°-180°</li> <li>ER at 90° abduction: 75°-90°</li> <li>IR at 90° abduction: 70°-75°</li> </ul>
	Week 9-12	<ul> <li>Shoulder Flexion 180°</li> <li>ER at 90° abduction: 100°-115°</li> </ul>
	Flexibility	Shoulder: Posterior shoulder stretch at PT discretion
TREATMENT RECOMMENDATIONS	<ul> <li>Prone "T,</li> <li>End range sta</li> <li>Shoulder ende</li> <li>UE ergometry</li> <li>Core strenght</li> <li>Weeks 10-16</li> </ul>	owers Ten ilization ain quadruped double arm protraction I" and progress to "Y" and "W" as ROM allows bilization using exercise blade/perturbations
CRITERIA FOR ADVANCEMENT	<ul> <li>Full shoulder AROM</li> <li>4/5 strength below shoulder height</li> </ul>	
EMPHASIZE	<ul> <li>Full P/AROM</li> <li>Restoration of scapular and RC muscle balance and endurance</li> </ul>	



Phase 4: Pylometric (Weeks 16-19)

PRECAUTIONS	<ul> <li>No painful activities</li> </ul>		
ASSESSMENT	<ul> <li>Quick DASH</li> <li>ASES</li> <li>NPRS</li> <li>PROM</li> <li>AROM</li> <li>Palpation</li> <li>Static/dynamic scapular assessment (Kibbler grading)</li> <li>Cervical mobility</li> <li>Elbow PROM/AROM</li> <li>Scapular static/dynamic assessment</li> <li>Shoulder MMT</li> <li>Grip Strength</li> </ul>		
TREATMENT RECOMMENDATIONS	<ul> <li>Continue shoulder RC and scapular stabilization exercises</li> <li>Continue and progress all Advanced Thrower's Ten exercises</li> <li>Initiate pylometrics as tolerated <ul> <li>Pylometric progression (over 4 week period)</li> <li>Double hand chest pass</li> <li>Double hand overhead soccer pass</li> <li>Double hand chops</li> <li>Single hand IR at 0° abduction</li> <li>Eccentric catch</li> <li>Single hand 90/90 IR</li> <li>Endurance progression</li> <li>Double hand overhead wall taps</li> <li>Single arm 90/90 wall taps</li> <li>Single arm 12 o'clock to 3 o'clock wall taps</li> <li>Exercise blade in multiple sessions</li> </ul> </li> </ul>		
CRITERIA FOR ADVANCEMENT	<ul> <li>Full shoulder AROM</li> <li>Symptom free progression through pylometrics and endurance program</li> </ul>		
EMPHASIZE	<ul> <li>Shoulder flexibility, strength and endurance</li> <li>Pain free plyometrics</li> </ul>		



Phase 5: Return to Performance Progression (5 months+)

PRECAUTIONS	<ul><li>All progressions should be pain-free</li><li>Monitor for loss of strength and flexibility</li></ul>	
ASSESSMENT	<ul> <li>Quick DASH</li> <li>ASES</li> <li>NPRS</li> <li>PROM</li> <li>AROM</li> <li>Palpation</li> <li>Static/dynamic scapular assessment (Kibbler grading)</li> <li>Cervical mobility</li> <li>Scapular static/dynamic assessment</li> <li>Shoulder MMT</li> <li>Grip Strength</li> </ul>	
TREATMENT RECOMMENDATIONS	<ul> <li>Initiate interval sports programs at 5 months</li> <li>Continue with all upper and lower extremity flexibility exercises</li> <li>Continue with advanced shoulder and scapular strengthening exercises</li> <li>Gradually progress sports activities</li> <li>Monitor workload</li> </ul>	
CRITERIA FOR RETURN TO PARTICIPATION	<ul> <li>Symptom free progression through interval sports program</li> <li>Independent with all arm care exercises</li> </ul>	
EMPHASIZE	<ul> <li>Return to sports activity</li> </ul>	