

# **Rehabilitation Protocol for Latarjet Repair**

This protocol is intended to guide clinicians through the post-operative course for a Latarjet Repair reconstruction. 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 of exercises. Therapeutic interventions should be included and modified based on the progress of the patient and under the discretion of the clinician.

## **Latarjet Repair Background**

In cases where significant bony deficiency is present (where greater than 20% of the glenoid's surface area is missing) addressing only the soft tissue issues during the surgical procedure (such as Bankart repair) may lead to eventual recurrence of instability. Bony deficiency can result from congenital deformity, trauma, or recurrent dislocation. When bony lesions reach critical dimensions, reconstruction of this deficit using autograft bone yields the best surgical results. The Latarjet procedure is the most popular and highly effective, transferring the distal coracoid into the bony defect.

#### **Considerations for the Post-operative Latarjet Repair**

Many different factors influence the post-operative course of an Open Latarjet Repair. Choice of surgical technique and need for concomitant procedures may affect the initial ROM restrictions as well as the timeframes for rehabilitation. It is recommended that clinicians collaborate closely with the referring physician regarding specific ROM restrictions, duration of sling use, and the timeframe for initiating strengthening. Complications to consider include possible non-union (3%), long-term pain requiring screw extraction. Functionally, the primary limitation noted following this procedure is a significant reduction in glenohumeral external rotation. As this is an anterior stabilizing procedure (and primarily a bony procedure), it is important to consider the soft tissue structures involved early on in rehabilitation, particularly if subscapularis was involved. External rotation is progressed gradually.

If you develop a fever, excessive drainage from incision, severe heat and/or redness along incision, uncontrolled pain, or any other symptoms that concern you please call your doctor.

## PHASE I: IMMEDIATE POST-OP (0-6 WEEKS AFTER SURGERY)

Rehabilitation	Protect the repair
Goals	Prevent negative effects of immobilization
	Initiate early protected and restricted range of motion (ROM)
	Diminish pain and inflammation
Sling	Use at night while sleeping
	Discharge at week 6 (or as directed by MD)
Precautions -	No passive range of motion (PROM) external rotation (ER) past neutral until week 5
may vary per MD	No shoulder active range of motion (AROM) in any plane until week 5
	No lifting of objects
	No supporting of body weight with hands
Intervention	Weeks: 0-2
	Range of Motion/Mobility
	Elbow/Hand AROM
	Gentle shoulder PROM flexion, elevation in the scapular plane and ER to neutral

Pendulums
Strengthening  • Hand gripping exercises
Swelling/Pain Management  Cryotherapy, modalities as indicated
<ul> <li>Weeks: 3-4 Range of Motion/Mobility</li> <li>Begin AAROM: towel counter slide, pulley flexion, pulley scaption, cane flexion, cane scaption, beach chair progression. Patient should not force motion. Avoid using compensatory strategies.</li> <li>PROM guidelines (will vary per surgeon and if additional procedures performed):         <ul> <li>Flexion to 120 degrees</li> <li>Internal rotation (IR) to 45 degrees in 0-30 degrees of ABD (scapular plane)</li> <li>ER to neutral</li> </ul> </li> </ul>
<ul> <li>Strengthening</li> <li>Scapular Retraction</li> <li>Begin submaximal, pain-free, shoulder isometrics with arm at side in neutral rotation:         <ul> <li>Flexion, abduction, extension, external rotation, internal rotation</li> </ul> </li> <li>Manual Therapy</li> <li>Initiate scar mobilization once incision is healed</li> </ul>
<ul> <li>Weeks: 5-6 Range of Motion/Mobility</li> <li>Begin AROM with minimal pain and avoiding substitution patterns</li> <li>AROM/PROM guidelines:         <ul> <li>Flexion to tolerance</li> <li>IR to 50 degrees at 30 deg ABD (scapular plane)</li> </ul> </li> </ul>

PHASE II: INTERMEDIATE POST-OP (7-8 WEEKS AFTER SURGERY)

Improved PROM/AROM within established parameters

Continue shoulder isometrics

Minimal pain or tenderness

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Rehabilitation	Continued improvement with PROM/AROM
Goals	Preserve the integrity of the surgical repair
	Good tolerance with addition of isotonic strengthening
Precautions	• Avoid excessive ER ROM stretching - <b>consult with surgeon for any continued ER ROM</b>
	limitations in this phase.
	Avoid activities or exercises that place excessive load on the anterior capsule or subscapularis
Additional	Range of Motion/Mobility
Intervention	• Continue to progress AAROM/AROM/PROM as indicated. ER ROM should remain gentle.
*Continue with	
Phase I	Strengthening
interventions as	• Initiate beginner level isotonic strengthening as AROM improves and progress as tolerated in all
indicated	planes
	o <u>Scaption to 90 degrees</u>
	<ul> <li>Sidelying external rotation (within established limitations if any remain)</li> </ul>
	<ul> <li>Scapular protraction/retraction supine</li> </ul>
	o <u>Scapular protraction/retraction against wall</u>

ER to 45 degrees at side and at 30 deg of ABD (scapular plane)

Strengthening

Criteria to

**Progress** 

	o <u>Prone rows: 30-degrees abduction, 45-degrees abduction, 90-degrees abduction to neutral</u>
	Stretching
	<u>Cross body adduction stretch</u>
	• <u>Sleeper stretch</u>
Criteria to	Shoulder AROM/PROM is progressing
Progress	Demonstrates good scapular control within range of motion available.
	Able to complete phase I activities without pain.

PHASE III: LATE POST-OP (9-12 WEEKS AFTER SURGERY)

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Rehabilitation	Continue to gradually restore full shoulder AROM/PROM
Goals	Preserve the integrity of the surgical repair
	Restore muscular strength and balance
	Enhance neuromuscular control, proprioception, and kinesthesia
Precautions	Limit overstressing the anterior capsule with aggressive overhead strengthening
Additional	Range of Motion/Mobility
Interventions	Continue ROM exercises as needed
*Continue with	
Phase I-II	Strengthening
interventions as	Continue to progress isotonic strengthening program by adding resistance.
indicated	• <u>Bicep curls</u>
	• IR at 0-degrees abduction, progress as able to IR at 90-degrees abduction
	• ER progression: ER at 0-degrees abduction, bilateral shoulder "Ws", ER at 90-degrees abduction
	<u>Scapular protraction/retraction in quadruped progressing to scapular protraction/retraction in</u>
	plank position
	• Standing rows progression: <u>low rows at side</u> , <u>rows at 45-degrees abduction</u> , <u>rows at 90-degrees</u>
	abduction C. II.
	Pushup progression: <u>standing/wall pushups</u> , <u>incline pushups</u> , <u>floor on knees pushups</u> , <u>full on</u> Second the second transfer of the second transfer
	floor pushups
	Prone horizontal abduction  Well "Ye" progress as able to prope "Ye"
	<ul> <li>Wall "Ys", progress as able to prone "Ys"</li> <li>Progress PNF patterns to resistance bands as tolerated</li> </ul>
	Progress PNF patterns to resistance bands as tolerated
	Manual
	PNF patterns with light manual resistance and progress as tolerated
	Rhythmic stabilization
	Shoulder joint mobilizations as indicated
Criteria to	Full non-painful ROM except for ER (may still be limited in some instances)
Progress	Satisfactory stability and no apprehension
	Muscular strength progressing (> 60% LSI)
	Good tolerance with strengthening progression
	door colorance with our engine ming progression

PHASE IV: STRENGTHENING (13-20 WEEKS AFTER SURGERY)

Rehabilitation	Maintain full ROM with continued stretching
Goals	Improve muscular strength, power, and endurance
	Gradually initiate sports specific movement patterns
Additional	ROM/Mobility
Interventions	Capsular stretches (if indicated)
*Continue with	Horizontal adduction stretching
Phase II-III	Shoulder ER @ 90 deg abduction stretching
Interventions	Shoulder IR stretch behind back
	Strengthening

	<ul> <li>PNF resisted - progressing to higher speeds as able</li> <li>Endurance training</li> <li>Plyometrics: wall plyometric push-ups, high kneeling plyometric push-ups, ½ kneeling med ball catch/throw with both hands</li> </ul>
	<ul> <li>Sports Specific</li> <li>Light sports activities (ex: light swimming, half golf swings)</li> <li>Initiate interval return to sport program (16–18 weeks)</li> </ul>
Criteria to Progress	<ul> <li>Full, pain-free functional ROM</li> <li>No complaint of glenohumeral instability</li> <li>80% or &gt; strength of ER and IR compared to contralateral shoulder with dynamometry testing</li> <li>80% or &gt; performance with field testing</li> <li>Clearance from MD and ALL milestone criteria have been met</li> </ul>

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

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Rehabilitation	Enhance muscular strength, power, and endurance
Goals	Unrestricted activities
Additional	ROM/Mobility
Interventions	Soft tissue mobilization and stretching as needed to maintain ROM
*Continue with	
Phase II-IV	Strengthening
interventions	Modified Bench Press with block
	Narrow grip barbell snatch
	• Plyometrics: <u>unilateral med ball catch/throw in half kneeling</u> , <u>rebounder throws</u> , <u>overhead ball</u>
	dribbles, deceleration catches, standing ball drops, prone 90/90 ball drops
Criteria to	• 90% or > strength of ER and IR compared to contralateral shoulder with dynamometry testing
Progress	• 90% or > performance with field testing
	• 90% or > on reported outcome measures (DASH, Penn Shoulder Score, SPADI)

#### Revised 12/2021

Contact	Please email MGHSportsPhysicalTherapy@partners.org with questions specific to this guideline.
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