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ORTHOPAEDIC SPORTS MEDICINE

PHYSICAL THERAPY PROTOCOL

Latarjet Procedure

Coracoid Transfer for Anterior Shoulder Instability

FOR THE PHYSICAL THERAPIST

Overview and Goals

This protocol governs rehabilitation following the Latarjet procedure — transfer of the coracoid process with its conjoint tendon to the anterior glenoid to treat recurrent anterior shoulder instability, typically in the setting of glenoid bone loss. Stability is restored by three mechanisms: the bone block restores glenoid arc, the transferred conjoint tendon provides a dynamic sling across the anteroinferior capsule, and the capsular repair reinforces the front of the joint.[1,2]

Rehabilitation protects two structures simultaneously: the coracoid graft as it consolidates to the glenoid (union rates ~94.5%), and the subscapularis, which is either split or partially taken down to pass the graft. The early phases therefore restrict external rotation and resisted internal rotation. Significant variability exists across published Latarjet protocols; the parameters below reflect a mainstream evidence-based course and are individualized by Dr. Roth based on intraoperative findings.[1,3,7]

EXTERNAL ROTATION AND RESISTED INTERNAL ROTATION ARE THE KEY EARLY RESTRICTIONS

External rotation is limited to protect the subscapularis and the anterior capsule; resisted internal rotation is avoided because it loads the healing subscapularis. Combined abduction/external rotation — the apprehension position — is avoided entirely in the early phases. The subscapularis management (split vs. partial tenotomy) and graft fixation quality are surgeon-individualized; follow Dr. Roth's written instruction where it differs from the ranges below.

Rehabilitation Phases

PHASE	SLING / PRECAUTIONS	ROM GOALS	EXERCISES	CRITERIA TO ADVANCE
PHASE 1 Weeks 0–3 *Protection*	• Sling in internal rotation for 2–4 weeks. • No active shoulder motion, no lifting. • Avoid combined abduction / external rotation.	**Passive / gentle only:** • External rotation limited to neutral or ≤ 30° • Pendulums • Forward elevation as tolerated (passive)	**Immediate (day 1):** • Elbow, wrist, hand AROM • Pendulum exercises • Cryotherapy, pain management **Scapular:** • Gentle scapular setting (retraction, depression) **Avoid:** • Active shoulder motion, resisted IR, combined ABD/ER	• Pain controlled • Incision healing • No graft-site concerns • Minimum 3 weeks elapsed
PHASE 2 Weeks 3–6 *Early motion*	• Wean sling per Dr. Roth (typically discontinued 3–6 weeks). • Continue to avoid resisted IR and combined ABD/ER.	• Passive & active-assisted forward elevation. • External rotation progressed but limited to 60° this phase.[4] • Full passive forward flexion is a typical goal by ~3 weeks.	**ROM:** • PROM/AAROM forward elevation • ER to 60° in scapular plane **Scapular stabilization:** • Periscapular activation, retraction, protraction **Avoid:** • Resisted internal rotation • Combined abduction / external rotation	• FE approaching functional range • ER to 60° • Normalizing scapular control • Minimum 6 weeks elapsed

PHASE	SLING / PRECAUTIONS	ROM GOALS	EXERCISES	CRITERIA TO ADVANCE
PHASE 3 Weeks 6–12 *Active motion & early strengthening*	• Sling discontinued. • No heavy lifting, plyometrics, or sport drills.	• Active ROM all planes (begins ~5–6 weeks). • Progress toward full, symmetric ROM. • Normal scapulothoracic motion targeted by ~9 weeks.	**Strengthening (begin ~6 weeks):** • Rotator cuff isometrics → isotonic ER/IR • Deltoid and periscapular strengthening **Closed-chain:** • Wall push-ups, weight-bearing on hands **ROM:** • Active ROM all planes; restore terminal ER gradually	• Active ROM all planes • No pain with isotonic RC work • Normal scapulothoracic rhythm • Minimum 12 weeks elapsed
PHASE 4 Weeks 12–16 *Advanced strengthening*	• None.	• Full, symmetric, pain-free ROM.	**Progressive resistive strengthening:** • Rotator cuff, deltoid, periscapular PREs • Open-chain strengthening in functional planes **Neuromuscular:** • Proprioceptive and neuromuscular training **Conditioning:** • Graft consolidation is commonly confirmed on imaging around 3–4 months before contact loading.[7] • Begin sport-specific conditioning for non-contact activities	• Strength approaching baseline • < 20° side-to-side ROM deficit all planes • Graft union confirmed on imaging • Minimum 16 weeks elapsed
PHASE 5 Weeks 16–24+ *Return to sport*	• None.	• Full, symmetric ROM.	**Sport-specific progression:** • Non-overhead → overhead drills (begin ~17 weeks on average) • Progressive plyometrics and sport-specific loading **Contact / collision athletes:** • Add ~2 months beyond the non-contact timeline before full clearance; ~42% of surgeons wait ≥ 6 months.[8,3]	• Strength recovered to baseline • < 20° side-to-side ROM deficit • Sport-specific drills without apprehension • Dr. Roth's clearance

Procedure-Specific Considerations

Subscapularis Management

The coracoid graft is passed through the subscapularis, which is managed either by a muscle-splitting approach or a partial tenotomy. A tenotomy that was repaired warrants more caution with external rotation and resisted internal rotation in Phases 1–2. Because this varies by case, Dr. Roth specifies the ER ceiling and the timing of resisted IR when his intraoperative approach differs from the default ranges above.

Graft Consolidation

The coracoid bone block must consolidate to the anterior glenoid, with union rates around 94.5%. Imaging around 3–4 months is commonly used to confirm consolidation before contact or collision loading. Strengthening in Phases 3–4 loads the construct progressively, but contact exposure waits for confirmed union.[7]

The Apprehension Position

Combined abduction and external rotation reproduces the position of anterior instability and maximally stresses the repair and graft. It is avoided entirely in the early phases and reintroduced gradually only in Phases 4–5 as strength and confidence return. Reproduction of apprehension during rehabilitation is a signal to slow down and communicate with Dr. Roth, his PA or his NP.

Collision and Overhead Athletes

Return-to-sport timing is individualized by sport demand. Overhead athletes require restoration of terminal external rotation without instability; collision athletes require confirmed graft union and typically an additional ~2 months beyond the non-contact timeline. Mean return to sport across the literature is ~5.8 months (range 3.2–8), with return-to-play rates around 89%.[9,7]

Return-to-Sport Criteria

Validated Latarjet-specific return-to-sport criteria remain limited; the most commonly used combine time from surgery, strength recovery, ROM symmetry, and imaging confirmation of graft union.[8] All criteria below should be met before clearance.

Domain	Criterion
Time	Non-contact sport typically ~4 months; collision athletes typically ≥ 6 months[8,3]
Range of motion	Less than 20° side-to-side deficit in all planes, including terminal external rotation[8]
Strength	Rotator cuff, deltoid, and periscapular strength recovered to baseline / symmetric[8]
Imaging	Graft union confirmed (plain radiographs most common; CT where indicated)[7,8]
Functional	Sport-specific drills performed without apprehension or instability[6]
Clearance	Final clearance by Dr. Roth; collision athletes counseled on the additional delay

References

1. Ali J, Altintas B, Pulatkan A, et al. Rehabilitation After Latarjet: A Review of Published Protocols. J Shoulder Elbow Surg / related synthesis. 2020.
2. Young AA, Maia R, Berhouet J, Walch G. Open Latarjet Procedure for Management of Bone Loss in Anterior Instability of the Glenohumeral Joint. J Shoulder Elbow Surg. 2011;20(2 Suppl):S61–S69.
3. Survey of Shoulder Surgeons on Latarjet Rehabilitation and Return-to-Sport Practices.
4. Latarjet Postoperative Motion Progression: External Rotation Limits by Phase (protocol synthesis).
5. Periscapular and Rotator Cuff Rehabilitation Principles After Anterior Stabilization.
6. Return to Sport After the Latarjet Procedure: Timing and Rates (literature synthesis).
7. Graft Union Rates and Imaging Assessment After the Latarjet Procedure (~94.5% union).
8. Return-to-Sport Criteria After the Latarjet Procedure: Surveyed Surgeon Practices.
9. Mean Time and Rate of Return to Play After Latarjet: Systematic Review (~5.8 months, ~89%).

Glossary

AAROM / AROM / PROM — Active-assisted / active / passive range of motion.

ABD / ER / IR — Abduction / external rotation / internal rotation of the shoulder.

Apprehension position — Combined abduction and external rotation — the position that reproduces anterior instability and is protected early.

Conjoint tendon — The shared tendon of the short head of biceps and coracobrachialis, transferred with the coracoid to form the dynamic sling.

Coracoid graft — The transferred coracoid process fixed to the anterior glenoid to restore the bony arc.

PRE — Progressive resistive exercise.

Subscapularis — The anterior rotator cuff muscle split or partially released to pass the graft; protected by limiting ER and resisted IR early.

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Dr. Roth completed his orthopaedic surgery residency at Harvard Medical School and his sports medicine fellowship at the Kerlan-Jobe Orthopaedic Clinic in Los Angeles. In practice since 2013, he specializes in advanced arthroscopic techniques and sports medicine procedures, and sees patients at Palo Alto Medical Foundation's Palo Alto and Dublin offices. He welcomes calls from physical therapists about his patients or this protocol.

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