CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

EVIDENCE SUMMARY

Latarjet Procedure

Latarjet (Coracoid Transfer) for Anterior Instability with Bone Loss: Rehabilitation Evidence

Topic: Open Latarjet / Bristow-Latarjet coracoid transfer for anterior glenohumeral instability with glenoid bone loss (>~20% glenoid, or off-track Hill-Sachs / failed soft-tissue repair). **Compiled:** 2026-06-16. Sources: local RAG ortho corpus + published fellowship/PT "standard of care" protocols.

How Latarjet rehab DIFFERS from arthroscopic Bankart

- **It is a BONY procedure** (coracoid autograft screw-fixed to the antero-inferior glenoid). Fixation is rigid -> the structural construct is stronger than soft-tissue suture anchors, so AROM and **return to sport are generally FASTER** than Bankart (Beletsky 2020: mean RTS ~19.6 wk Latarjet vs ~32.4 wk Bankart, p<0.001).
- **BUT two distinct soft-tissue structures must be protected** that Bankart does not involve: (1) the **subscapularis** (split, or taken down and repaired, to pass the graft); (2) the **coracoid graft osseous union** (~6-8 weeks to unite) plus the conjoint-tendon (biceps short head + coracobrachialis) "dynamic sling" still attached to the graft.
- **Graft-protection precautions:** avoid **aggressive shoulder extension** and **combined extension + external rotation** stretching early (tensions the conjoint origin on the graft). Progress **biceps/ coracobrachialis strengthening gradually**. If subscapularis was taken down & repaired, **slow ER progression and avoid aggressive IR strengthening** until subscap healed - get an intra-operative "safe-zone" ER from the surgeon.
- Expect a **permanent mild ER deficit** (Hovelius: mean loss ~7.4 deg in adduction, ~8 deg in abduction) - this is accepted, not a complication.

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Consensus phased timeline (BWH Latarjet standard of care)

Phase	Week window	Sling/brace	ROM allowed & restrictions	AROM / strengthening	RTS
I - Immediate post-surgical	0-2 wk	Sling at all times (remove only to shower, arm at side); towel under elbow to prevent **hyperextension** (graft protection); sleep in sling	**No AROM.** PROM only, no forcing: flexion/elevation & scaption to tolerance; **IR to 45 deg at 30 deg abd**; **ER 0-25 deg in scapular plane at 30-40 deg abd** (open-packed); respect anterior capsule; use intra-op ER measurements	Scapular isometrics, ball squeezes; cryotherapy	None
II - Intermediate / ROM	3-9 wk	**Wean from sling beginning wk 3**	Early (wk 3-4): **ER to 0-45 deg** at 30-40 deg abd, IR 45 deg at 30 deg abd. Late (wk 6): ER to tolerance, progress to multiple abd angles once >=35 deg; IR multi-angle. AAROM from wk 3 -> AROM by ~wk 6 (good mechanics, up to 90-110 deg elevation)	Begin balanced AROM/ strengthening late phase II (~wk 6): high-rep/low-load (1-3 lb), full-can scaption to 90 deg, ER/IR tubing at 0 deg abd (towel roll), prone rows, rhythmic stabilisation. Subscap-specific work (upper+lower fibres)	None
III - Strengthening	10-15 wk	None	Continue A/PROM; near-full ROM before loading a plane	Biceps curls light; progressive pec major/minor (avoid anterior-capsule-stress positions); subscap strengthening (push-up plus, cross-body diagonals, IR band 0/45/90, forward punch)	Chest-level functional activities

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Phase	Week window	Sling/brace	ROM allowed & restrictions	AROM / strengthening	RTS
IV - Overhead / return to activity	16-20 wk	None	Full pain-free ROM	Overhead strengthening once sub-90 strength good; progressive weightlifting (15-25 reps); plyometrics/ interval program if cleared; push-ups allowed but elbows not past 90 deg	**Throwing/ overhead not before 4 months**; pre-injury sport when cleared by MD

Active ROM start: AAROM wk 3, AROM ~wk 6. **Strengthening start:** scapular isometrics immediately; isotonic/RC strengthening ~wk 6. **RTS:** chest-level ~10-15 wk; **overhead/throwing >=4 months; full/ contact sport typically ~5-6 months** (RAG cohorts: open Latarjet RTS averages ~6 months; bone-block soft-tissue/graft healing requires the 3-month minimum). ER milestones to advance: PE >=155 deg, ER within 8-10 deg of contralateral at 20 deg abd and >=75 deg at 90 deg abd.

Graft-protection summary (the Latarjet-specific precautions): no aggressive extension or extension+ER stretch early; protect conjoint tendon/biceps origin; protect subscapularis (slower ER + delayed IR strengthening if taken down); no pec flys/wide-grip bench/military press/behind-neck lat pulls; tricep dips avoided; osseous union ~6-8 wk gates heavier loading.

Key controversies & evidence flags

1. **Is a sling even necessary after open Latarjet?** An **RCT (Kourimpetis/PMC9969622, "Is sling immobilization necessary after open Latarjet surgery...")** challenges routine immobilisation - because rigid bony fixation may not need the soft-tissue protection a Bankart does. This is the leading edge of "accelerated Latarjet." **Evidence: STRONG (single RCT) - emerging, not yet standard.**
2. **Accelerated Latarjet rehab / faster RTS.** Multiple comparative studies (Beletsky 2020; Delgado 2025 matched-pair; Rogowski 2025 JSES) confirm Latarjet RTS is earlier than Bankart and that **bony union (~3 months) - not soft-tissue - is the rate limiter**. Rogowski (JSES 2025) argues functional dominant/non-dominant testing at 4.5 months predicts successful RTS better than time alone, supporting **criteria-based acceleration**. **Evidence: MODERATE (good cohorts, no large RCT on the rehab pace itself).**
3. **Contact/collision-sport return & procedure choice.** Latarjet is often preferred in collision athletes (rugby) precisely because of bone block + dynamic sling. Tanaka 2022 / Hirose 2026 (Bristow vs Latarjet in rugby) and Gowd 2021 (JSES, RTS after Latarjet) inform RTS rates and timing; subluxation/pain after RTS more frequent in some Latarjet vs Bristow series. Contact RTS still generally ~5-6 months and criteria-based. **Evidence: MODERATE cohort-level.**

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4. **Subscapularis split vs takedown-and-repair** changes ER progression: takedown demands slower ER and delayed IR strengthening. Protocol explicitly defers to an intra-operative surgeon-defined ER "safe zone." **Evidence: consensus / biomechanical rationale.**

CITATIONS

PUBLISHED REHABILITATION PROTOCOLS (URLS)

- Brigham & Women's Hospital, Dept. of Rehabilitation Services - *Anterior Stabilization of the Shoulder: Latarjet Protocol* (orig. 2009, updated May 2016): https://www.brighamandwomens.org/assets/BWH/patients-and-families/rehabilitation-services/pdfs/shoulder-latarjet.pdf
- Rehabilitation Guidelines for Latarjet/Coracoid Process Transfer (Eichinger, MD): https://www.josefeichingermd.com/pdf/rehab-guideline-for-latarjet.pdf
- Rehabilitation Protocol - Latarjet (Coracoid Transfer/Eden-Hybinette), Lindsay Sports Med (2025): https://www.lindsaysportsmed.com/pdf/laterjet-and-edenhybinette-center-2025.pdf
- Rehabilitation Protocol: Latarjet Coracoid Process Transfer (Utz, MD): https://www.christopherutzmd.com/pdfs/latarjet-protocol.pdf
- Latarjet Procedure overview - Physiopedia: https://www.physio-pedia.com/Latarjet_Procedure

LOCAL RAG CORPUS (ARTICLE / JOURNAL / YEAR)

- Beletsky A, Cancienne JM, Manderle BJ, et al. *A Comparison of Physical Therapy Protocols Between Open Latarjet Coracoid Transfer and Arthroscopic Bankart Repair.* Sports Health. 2020. **[protocol comparison - Latarjet RTS ~19.6 wk vs Bankart ~32.4 wk, p<0.001; AAROM ~6-8 wk]**
- Matache BA, Hurley ET, Wong I, et al. *Anterior Shoulder Instability Part III - Revision Surgery, Rehabilitation and Return to Play - An International Consensus Statement.* Arthroscopy. 2021;38(2). *(Poses the open questions on immobilisation duration after coracoid transfer vs Bankart vs glenoid bone grafting.)* **[consensus]**
- Gowd AK, Liu JN, Polce EM, et al. *Return to sport following Latarjet glenoid reconstruction for anterior shoulder instability.* Journal of Shoulder and Elbow Surgery. 2021;30(11):2549-2559. **[systematic review - RTS]**
- Rogowski I, Nove-Josserand L, Godeneche A, et al. *Are the dominant-nondominant functional differences at 4.5 months after open Latarjet better predictors for successful RTS at 1 year than operated-nonoperated differences?* Journal of Shoulder and Elbow Surgery. 2025;34(10):2338-2349. *(3-month delay needed for graft healing; RTS ~6 months; criteria-based prediction.)* **[prospective cohort]**
- Delgado C, Calvo E, Valencia M, et al. *Arthroscopic Bankart Repair Versus Arthroscopic Latarjet for Anterior Shoulder Instability: A Matched-Pair Long-Term Follow-up Study.* Orthopaedic Journal of Sports Medicine. 2025. **[matched-pair comparative]**
- Tanaka M, Hanai H, Kotani Y, et al. *Open Bristow Versus Open Latarjet for Anterior Shoulder Instability in Rugby Players.* Orthopaedic Journal of Sports Medicine. 2022. **[comparative - contact athletes]**

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- Hirose T, Tanaka M, Nakai H, et al. *Comparing Bristow and Latarjet procedures for anterior shoulder instability in competitive rugby players.* Journal of Shoulder and Elbow Surgery. 2026;35(4). **[within-subject comparative]**
- Bonnevialle N, Girard M, Dalmas Y, et al. *Short-Term Bone Fusion With Arthroscopic Double-Button Latarjet Versus Open-Screw Latarjet.* The American Journal of Sports Medicine. 2021. **[fixation/union]**
- Salem HS, Vasconcellos AL, Sax OC, et al. *Intra-articular Versus Extra-articular Coracoid Grafts: A Systematic Review of Capsular Repair Techniques During the Latarjet Procedure.* Orthopaedic Journal of Sports Medicine. 2022. *(Documents post-Latarjet ER loss ~4.5-6.3 deg.)* **[systematic review]**

ADDITIONAL ONLINE RCT/EVIDENCE

- "Is sling immobilization necessary after open Latarjet surgery for anterior shoulder instability? A randomized controlled trial." PMC9969622: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9969622/ **[STRONG - RCT challenging routine immobilisation]**
- "Latarjet procedure enables 73% to return to play within 8 months depending on preoperative SIRSI and Rowe scores." PMC8298242: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8298242/ **[cohort - RTS rate/timing]**

Overall evidence grade for the phased protocol itself: CONSENSUS / institutional standard-of-care (Level V). The "sling necessary?" question is the only RCT-level datapoint; accelerated/criteria-based RTS rests on good comparative cohorts (Level III).

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