CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

EVIDENCE SUMMARY

Posterior Stabilisation

Posterior Stabilisation (Posterior Labral / Capsular Repair): Rehabilitation Evidence

Topic: Arthroscopic or open posterior labral repair / posterior capsulorrhaphy (reverse Bankart) for posterior glenohumeral instability. **Compiled:** 2026-06-16. Sources: local RAG Orthopaedic corpus + published fellowship/PT "standard of care" protocols.

The key difference vs anterior (Bankart/Latarjet): the precaution is REVERSED

Posterior instability and the posterior repair are stressed by the OPPOSITE motions to an anterior repair. The provocative/at-risk position is **flexion + adduction + internal rotation (and horizontal adduction)** - exactly the position of a posterior load (Itoi/Shoulderology: recurrent posterior instability = PIGHL deficiency failing to resist posterior translation with the arm in **flexion and internal rotation**). Therefore: - **EARLY PRECAUTION = limit flexion, internal rotation, adduction, and horizontal/cross-body adduction; protect against the posteriorly-directed load.** (Anterior repairs instead limit ER + abduction.) - **Sling/brace is positioned in slight ABDUCTION and NEUTRAL/slight EXTERNAL rotation** - often a "gunslinger" brace or abduction pillow - to keep the humeral head off the posterior repair. The arm must be kept **in front of the body**; **do NOT reach behind the back** and **avoid internal rotation** early. - Posterior instability is uncommon (~3-5% of instability) so high-level evidence is sparser; protocols are consensus/biomechanically driven.

CQ HAND + UPPER LIMB
Dr Kieran Hirpara — Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au

Consensus phased timeline (UVA Sports Medicine posterior labral repair standard of care)

Phase	Week window	Sling/brace	ROM allowed & RESTRICTIONS	AROM / strengthening	RTS
I - Immediate / protect	0-2 wk	**Sling (all components) at all times** incl. sleeping (gunslinger / neutral-to-slight-ER, slight abduction); off only for home ex/ PT	Pendulums; elbow/ wrist ROM only. **No shoulder PROM into the at-risk arc.** Keep arm in front of body	Grip/wrist; ball squeezes	None
II - Early PROM	2-4 wk	Continue sling at all times; **keep arm IN FRONT - do NOT reach behind back**	**PROM (PT-supervised), strictly limited:** flexion to **60 deg**, extension to **neutral (0 deg)**, abduction to 90 deg, ER to 45 deg, **IR to neutral (0 deg) at side**. No home pulleys	Scapular strengthening; submaximal pain-free isometrics in ALL directions (in sling); cervical ROM	None
III - Increase PROM, begin AAROM/ strengthening	4-6 wk	Continue sling by day; **may stop sling at night but AVOID internal rotation**; keep arm in front	PROM: flexion to **90 deg**, extension to **30 deg**, abduction full as tolerated, **ER 45 deg at 90 deg abd / full at side**, **IR limited to 30 deg at 90 deg abd**. Begin AAROM (wall walks). No reaching behind back	Continue scapular + isometrics; **begin light ER Theraband at side**. No lift/push/pull >2 lb, no overhead	None
IV - Advance	6-8 wk	**Discontinue sling at 6 wk**	Advance AROM to full as tolerated **EXCEPT IR**; **limit IR to 45 deg (at side and at 90 deg abd) until 12 wk**	Isotonic RC (to 6-8 lb), UBE, wall push-ups, advance scapular, begin D1/ D2 PNF (<=3 lb). Lift <=5 lb	None
V - Strengthen	8-12 wk	None		Advance RC/ scapular, dynamic	None

CQ HAND + UPPER LIMB
Dr Kieran Hirpara — Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au

Phase	Week window	Sling/brace	ROM allowed & RESTRICTIONS	AROM / strengthening	RTS
			IR still limited to 45 deg until 12 wk; full in all other planes	stabilisation, isokinetics with 60 deg block; Thrower's 10 for throwers (from ~10-12 wk). Lift <=7 lb (wk 8-10) -> <=10 lb (wk 10-12)	
VI - Full ROM / weight training	12-14 wk	None	**IR advanced to FULL at 12 wk.** Full ROM all directions	Traditional weight training (machines -> free weights), eccentric RC, advance PNF/ isokinetics. Begin overhead-work progression	Begin late-stage loading
Thrower progression / RTS	14-24 wk	None	Full	Throwing program from 14-16 wk (60% velocity); isokinetic testing 16-24 wk; interval throwing once passed	**No contact sport before 5 months**; full RTS on criteria + surgeon clearance

Active ROM start: AAROM ~4 wk, full AROM (except IR) by ~6-8 wk. **Strengthening start:** isometrics from ~2-4 wk; isotonic RC ~6 wk. **RTS:** throwing 14-16 wk; **contact sport not before 5 months**; criterion-based.

RTS CRITERIA (UVA)

Pass isokinetic test (ER/IR unilateral >=70%, ER bilateral >=98%, IR bilateral >=105%, ER/IR peak-torque/BW ratios); completed throwing program; no pain with activity; surgeon clearance; **>=5 months post-op for contact sport.**

Posterior-specific precaution summary: sling in slight abduction/neutral-ER (gunslinger); keep arm in front; **avoid IR, adduction, horizontal/cross-body adduction, and flexion past limits early**; IR is the LAST motion restored (capped 45 deg until 12 wk, full at 12 wk). This is the exact inverse of the anterior protocols, which cap ER.

CQ HAND + UPPER LIMB
Dr Kieran Hirpara — Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au

Key controversies & evidence flags

1. **Brace type/position - gunslinger / neutral-to-ER vs simple sling.** Biomechanical consensus favours immobilisation in **neutral or slight external rotation with slight abduction** to unload the posterior capsulolabral repair (reverse of the IR sling used after anterior repair). The Sheean/Kibler current-concepts review and the published PT protocols converge on this, but there is **no RCT** comparing posterior brace positions. **Evidence: consensus / biomechanical (Level V).**
2. **Throwers / overhead athletes vs traumatic (collision) posterior instability.** Posterior labral injury in overhead athletes is often insidious/atraumatic (Sheean 2020), demanding a slower, more conservative throwing return; traumatic posterior instability in collision athletes (Funk 2009 rugby series; Kang "batter's shoulder") may follow a more standard timeline. Savoie (Arthroscopy 2008, 136 shoulders) shows arthroscopic posterior reconstruction is effective after failed conservative care. **Evidence: case-series level (Level IV); no RCTs on rehab pace.**
3. **Sparse high-level evidence overall.** Because posterior instability is rare (~3-5%), there are **no instability-position RCTs** for the posterior repair and protocols are extrapolated/biomechanical. Flag everything here as **CONSENSUS / Level IV-V.** The "Rehabilitation Following Posterior Shoulder Stabilization" clinical commentary (PMC8168996) is the main synthesising source.
4. **Contact-sport return timing.** Recent series (e.g., "Favorable Outcomes After Arthroscopic Posterior Bankart Repair for Traumatic Posterior Shoulder Instability in Collision Athletes," PMC12800795) support good RTS, but timing remains criteria-based with a ~5-6 month floor for collision sport. **Evidence: cohort (Level IV).**

CITATIONS

PUBLISHED REHABILITATION PROTOCOLS (URLS)

- University of Virginia Sports Medicine - *Posterior Labral Repair Rehabilitation Protocol (Arthroscopic or Open)*: https://med.virginia.edu/orthopaedic-surgery/wp-content/uploads/sites/242/2021/06/Posterior-Labral-Repair.pdf
- St. Louis Orthopedic Specialists - *Posterior Labral Repair and Capsulorrhaphy Protocol*: https://www.stlorthospecialists.com/wp-content/uploads/2019/05/Posterior-Labral-Repair-and-Capsulorraphy-Rehab-Protocol.pdf
- Dr. Coyner - *Posterior Labral Repair Protocol*: https://www.drcoyner.com/pdf/posterior-labral-repair-protocol.pdf
- Indianapolis Sports Medicine - *Posterior Labral Repair Rehab Protocol*: https://www.indysportsdr.com/pdf/posterior-labral-repair-rehab-protocol.pdf
- "Rehabilitation Following Posterior Shoulder Stabilization" (clinical commentary), PMC8168996: https://pmc.ncbi.nlm.nih.gov/articles/PMC8168996/

CQ HAND + UPPER LIMB
Dr Kieran Hirpara — Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au

- "Postsurgical Rehabilitation of Posterior Instability," Musculoskeletal Key: https://musculoskeletalkey.com/postsurgical-rehabilitation-of-posterior-instability/

LOCAL RAG CORPUS (ARTICLE / JOURNAL / YEAR)

- Eiji Itoi. *Shoulderology.* 2023. *(Posterior instability ~3% of instability; PIGHL deficiency; at-risk position = flexion + internal rotation - the basis for the reversed precaution.)* **[textbook / mechanism]**
- Sheean AJ, Kibler WB, Conway J, et al. *Posterior Labral Injury and Glenohumeral Instability in Overhead Athletes: Current Concepts for Diagnosis and Management.* Journal of the American Academy of Orthopaedic Surgeons. 2020. **[current-concepts review]**
- Funk L, Badge R, Tambe A. *Arthroscopic isolated posterior labral repair in rugby players.* International Journal of Shoulder Surgery. 2009. **[case series - traumatic posterior instability, collision athletes]**
- Savoie FH, Holt MS, Field LD, Ramsey JR. *Arthroscopic Management of Posterior Instability: Evolution of Technique and Results.* Arthroscopy. 2008;24(4). *(136 shoulders; arthroscopic posterior reconstruction after failed conservative rehab.)* **[large case series, Level IV]**
- Kang RW, Mahony GT, Harris TC, et al. *Posterior Instability Caused by Batter's Shoulder.* Clinics in Sports Medicine. 2013. **[technique / case series]**
- Rockwood CA, Fehringer EV. *Rockwood and Matsen's The Shoulder.* 2016. *(Posterior drawer / laxity exam in neutral rotation; diagnostic basis.)* **[textbook]**

Overall evidence grade for the phased protocol itself: CONSENSUS / institutional standard-of-care, weaker than the anterior literature (Level IV-V; no RCTs on posterior brace position or rehab pace). The reversed precaution (limit IR/adduction/flexion; brace in abduction + neutral/ER) is biomechanically well-founded but not RCT-tested.

CQ HAND + UPPER LIMB
Dr Kieran Hirpara — Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au