CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

EVIDENCE SUMMARY

# Inpatient exercises — capsular release & subacromial decompression

## Inpatient (Early In-Hospital) Phase — Capsular Release ± Subacromial Decompression

**Topic scope:** the **early in-hospital phase** of rehabilitation for patients who have just had an **arthroscopic capsular release** (for a stiff/frozen shoulder) and/or an **arthroscopic subacromial decompression** (acromioplasty). This page covers only the first day or two after surgery — getting the shoulder moving before the patient goes home. The **full recovery course** lives in the parent protocols: capsular release and subacromial decompression. Read those for the week-by-week plan, strengthening and return to work/sport.

> *Defining principle of this pathway (the inversion): unlike most shoulder operations — where a repair (cuff, labrum, instability) must be **protected** in a sling and range of motion is **restricted** to let the tissue heal — capsular release does the **opposite**. Nothing has been repaired, so there is **no construct to protect**. The shoulder was deliberately freed up in theatre, and the enemy now is **re-stiffening**. The in-hospital priority is therefore **immediate, aggressive range of motion from day 0–1, usually with no protective sling** (or a sling only for comfort, discarded quickly), to hold on to the range gained at surgery. A subacromial decompression is also a "make room / take pressure off" operation with no repair, so it follows the same early-movement logic. The single thing that changes this is if the surgeon **also had to repair a rotator cuff tear** at the same time — then the slower, protected cuff-repair pathway applies and the surgeon will say so.*

## The early in-hospital phase

The aim of the first day or two is simple: keep the shoulder moving and keep the patient comfortable enough to do so. In hospital, patients are started on **gentle hand, wrist and elbow movements**, **pendulum (Codman) swings**, and **assisted elevation and external rotation** — exactly the gentle exercises listed on the patient page.

**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

Adequate pain relief is the practical key, because a comfortable patient will move the arm, and a moving arm does not re-stiffen.

For **capsular release** in particular, surgeons commonly inject an **intra-articular corticosteroid and perform a gentle controlled manipulation at the end of the operation** to confirm the gained range and to damp down the post-operative inflammation that drives re-contracture [Smith 2017, PMC5137660]. The early motion exercises then begin straight away — often **the same day or the first day after surgery**.

# Evidence by theme

### IMMEDIATE-MOTION CAPSULAR-RELEASE PROTOCOLS

Published arthroscopic capsular release (ACR) series describe starting motion **immediately**, not after a protected period. The largest cohort (**Kanbe 2018, n = 255**) commenced "passive, assisted-active and stooping (pendulum) exercises for forward flexion and external rotation **1 day after surgery**," progressing to active strengthening at ~2 weeks and return to work by 4–6 weeks [Kanbe 2018]. Surgical-technique reviews echo this: active-assisted and passive range-of-motion exercises — pendulum/circumduction and pulley work — "can be started on the **first postoperative day**," and patients perceive the improvement in motion immediately, which reinforces their commitment to moving the arm [Essential Surgical Technique, PMC6221416]. Several ACR series pair the release with an **intra-articular steroid + controlled manipulation** at the index procedure to limit re-stiffening [Smith 2017, PMC5137660]. *Evidence: large cohorts + expert/consensus.*

### SUBACROMIAL DECOMPRESSION — EARLY MOTION, SLING FOR COMFORT ONLY

Arthroscopic subacromial decompression (acromioplasty) likewise has **no repair to protect**. Patient-guidance protocols start **physiotherapy immediately** after surgery, with a **sling worn only 1–2 weeks for comfort** and early active range of motion (forward elevation below shoulder height, gentle rotation) from the outset; strengthening follows at 4–6 weeks and unrestricted activity by 6–12 weeks [Boston Shoulder Institute SAD protocol; London Shoulder Partnership]. The **important caveat**, stated in every protocol, is that a **concomitant rotator cuff repair** (or biceps/SLAP repair) converts the recovery to the slower, protected pathway [PMC6145625].

### WHY IMMEDIATE MOTION (AND NOT PROTECTION)

A small number of patients develop **stiffness after even simple arthroscopic shoulder procedures**, which is the failure mode early movement is designed to prevent [Frozen shoulder after simple arthroscopic procedures, 10.1302/0301-620x.97b7.35387]. Conversely, the corpus also flags **chondrolysis after shoulder arthroscopy** as a rare but serious complication — a reminder that "aggressive" here means aggressive *motion*, on a comfortable, well-analgesed patient, not aggressive intra-articular intervention [10.1177/0363546503262176].

**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

# Phased timeline — early phase only

| Phase | Window | Sling | ROM / use | Notes |
|---|---|---|---|---|
| **0 — In hospital (this page)** | **Day 0–1** | **None, or comfort only** — left off as much as possible, not worn to sleep | Gentle hand/wrist/elbow movement; **pendulums**; **assisted forward flexion + external rotation** begun day 1; HEP several times/day | Take painkillers **before** exercises and physio; ice for pain. Capsular release: intra-articular steroid ± gentle manipulation often given in theatre |
| **1 — First weeks (see parent protocol)** | Week 0–2+ | Comfort only, discarded early | Continue assisted/active motion to **hold the gained range**; physio ≥ 2×/week early on | Full week-by-week plan, strengthening and return to function are in the capsular release and subacromial decompression protocols |

**Branch point — if a rotator cuff repair was also performed:** the recovery converts to the protected **rotator-cuff-repair** pathway (sling ~6 weeks, restricted motion, delayed strengthening). The surgeon confirms which pathway applies before discharge — **this is a surgeon-decided point, not a default.**

# Key controversies / evidence quality

1. **The post-operative rehab protocol is consensus/expert, not RCT-derived.** There is no high-level trial defining the optimal regimen after capsular release; published protocols are large cohorts and surgeon patient-guidance documents and vary in detail [Kanbe 2018; Willmore 2020 review]. What is consistent across them all is the **immediate-motion, no-protective-sling** principle.
2. **Sling: comfort only vs none.** Protocols differ on whether to use a comfort sling at all and for how long (days to ~2 weeks for decompression). All agree it must be **left off as much as possible** and is never a protective device here.
3. **Steroid + manipulation at the index procedure.** Common in ACR to limit re-stiffening, but the exact regimen (dose, whether to manipulate) is surgeon preference, not standardised by trial.

# Evidence-strength flags

- **MODERATE (large cohorts):** clinical outcomes of arthroscopic capsular release with day-1 motion (Kanbe 2018, n = 255); subacromial decompression outcomes.
- **WEAK / CONSENSUS:** the **early-phase rehab protocol itself** — immediate motion, sling-for-comfort rules, intra-articular steroid + manipulation timing (surgeon patient-guidance and expert review; no defining rehab RCT).

**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

- **Branch-point claim (cuff repair → protected pathway):** STRONG rationale and uniformly stated across protocols.

# Citations


### RAG CORPUS (180,000+ ORTHOPAEDIC ARTICLES)

- Arthroscopic capsular release for refractory shoulder stiffness: a critical analysis of effectiveness in specific etiologies. *J Shoulder Elbow Surg*. DOI: 10.1016/j.jse.2009.08.004
- Arthroscopic release of postoperative capsular contracture of the shoulder. *J Bone Joint Surg Am*. 1997. DOI: 10.2106/00004623-199708000-00006
- Arthroscopic release for chronic, refractory adhesive capsulitis of the shoulder. *J Bone Joint Surg Am*. 1996. DOI: 10.2106/00004623-199612000-00003
- Clinical outcome of arthroscopic capsular release for frozen shoulder: essential technical points in 255 patients (Kanbe 2018; day-1 ROM, 4–6 wk return to work). *J Orthop Surg Res*. 2018. DOI: 10.1186/s13018-018-0758-5
- Establishing the MCID and PASS thresholds following arthroscopic capsular release for idiopathic adhesive capsulitis. *Arthroscopy*. 2023. DOI: 10.1016/j.arthro.2023.08.083
- Frozen shoulder after simple arthroscopic shoulder procedures. *Bone Joint J*. 2015. DOI: 10.1302/0301-620x.97b7.35387
- Glenohumeral chondrolysis after shoulder arthroscopy (rare serious complication; “aggressive” = motion, not intra-articular intervention). *Am J Sports Med*. 2004. DOI: 10.1177/0363546503262176
- Effect of capsular release in the treatment of shoulder stiffness concomitant with rotator cuff repair. *Am J Sports Med*. 2014. DOI: 10.1177/0363546513519326

### LITERATURE & PUBLISHED PROTOCOLS (URLS)

- Kanbe K. Clinical outcome of arthroscopic capsular release for frozen shoulder (day-1 ROM protocol). PMC: https://pmc.ncbi.nlm.nih.gov/articles/PMC5857121/
- Smith CD et al. Arthroscopic capsular release for idiopathic frozen shoulder with intra-articular injection and controlled manipulation. PMC5137660: https://pmc.ncbi.nlm.nih.gov/articles/PMC5137660/
- Essential surgical technique for arthroscopic capsular release (active-assisted/passive ROM from first post-op day). PMC6221416: https://pmc.ncbi.nlm.nih.gov/articles/PMC6221416/
- Arthroscopic subacromial decompression and acromioplasty – rehabilitation and concomitant-repair caveat. PMC6145625: https://pmc.ncbi.nlm.nih.gov/articles/PMC6145625/
- Boston Shoulder Institute – Post-operative arthroscopic subacromial decompression protocol (sling 1–2 wk for comfort, immediate physio): https://bostonshoulderinstitute.com/wp-content/uploads/2014/07/Shoulder-Subacromial-Decompression-protocol2.pdf



**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

- The London Shoulder Partnership – Subacromial decompression (acromioplasty): http://thelondonshoulderpartnership.co.uk/shoulder/shoulder-surgery/subacromial-decompression-acromioplasty/
- J Paget NHS – Patient information: arthroscopic capsular release following a frozen shoulder (sling for comfort, early movement): https://www.jpaget.nhs.uk/media/efmf3bab/arthroscopic-capsular-release-following-a-frozen-shoulder.pdf

**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