CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

REHABILITATION PROTOCOL

Clavicle Fixation (ORIF) — Rehabilitation Protocol

This protocol guides your recovery after plate fixation of a fractured clavicle (collarbone) — open reduction and internal fixation (ORIF) — with Dr Kieran Hirpara at Mater Private Hospital Rockhampton. Each phase below opens with a plain-English explanation of what is happening and what matters most, followed by the structured protocol written **for your physiotherapist** — bring this page or its PDF to your first physiotherapy visit so your rehabilitation stays coordinated. Your physiotherapist may adjust the plan depending on how your recovery progresses.

If you have any concerns about your wound after surgery, get in touch with the rooms. It is often helpful to take a photo of the wound and email it for review.

What to expect

The operation holds the broken ends of the collarbone in position with a plate and screws so that the bone can heal. The plate is strong, but it is a splint, not a substitute for healed bone — the bone itself typically takes around six to twelve weeks to unite, and it keeps strengthening (remodelling) for months after that. Rehabilitation is staged around that biology: the early weeks protect the fixation while the fracture starts to knit, movement is recovered next, and loading and sport come last, once the bone can take them.

Because this is a fracture, each major step up — moving the arm above shoulder height, strengthening, heavier lifting, and return to sport — depends not just on the calendar but on how the fracture looks on x-ray, as confirmed at your review with Dr Hirpara. The week ranges below are typical rather than fixed.

Bone healing is slower in smokers and in people with diabetes, and smoking in particular can delay or even prevent a fracture from uniting. If you smoke, the weeks after a fracture are a particularly worthwhile time to stop.

The collarbone sits directly under the skin, so it is common to feel — and see — the plate once the swelling settles. It may be tender under a seatbelt or a backpack strap in the early months; this usually settles as the area desensitises. If the plate remains bothersome after the fracture has fully healed, removing it is an option that can be discussed at a later review — it is a separate, unhurried decision, made well after the bone has united.

The journey at a glance:

- **Phase I — Protection** — weeks 0–3

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- **Phase II – Early motion** – weeks 3–6
- **Phase III – Strengthening** – weeks 6–12
- **Phase IV – Return to full activity and sport** – week 12 onwards

Wearing your sling

The sling supports the weight of the arm, eases discomfort and protects the healing bone in the early weeks. The rules are simple:

- Wear it especially when out of the house, to protect the arm and to stop people bumping into it. You don't need to sleep in it.
- For the first three weeks, wear it most of the time. From then on it is weaned as comfort allows, and most people have discarded it by six weeks.
- Take it off for showers, for your exercises, and for quiet tasks done sitting down with the arm supported – eating, writing, reading.
- Resting at home, the sling can come off if you are sensible about it: arm supported on a pillow while sitting, and the hand kept below shoulder height.
- **No driving while you are wearing a sling.** Driving resumes once you are out of the sling and can control the car comfortably and safely, as confirmed at your review with Dr Hirpara.

Your first days after surgery

If a nerve block was used during surgery, the arm may feel numb and heavy for some hours afterwards – keep it protected in the sling until normal feeling returns. A few practical tips for the early days:

- Take your painkillers **before** you do your exercises, and before your physiotherapy appointments.
- Use ice over the area for pain and swelling – about 15–20 minutes at a time, wrapped in a damp cloth, never directly on the skin or the wound.
- When wearing the sling, relax your shoulder and let the sling take the weight of your arm.
- Watch your posture: keep your ears, shoulders and hips in line and avoid letting the shoulders slump forward – good posture protects the fracture position and helps prevent stiffness.
- Keep your fingers, wrist, elbow and neck moving from the start.
- If you have any problems, contact the rooms or let your physiotherapist know.

Phase I – Protection (Week 0–3)

The first weeks are about protecting the fixation while the fracture starts to knit. You will be in the sling, managing swelling with ice, and doing gentle exercises that keep the rest of the arm moving – hand, wrist,

elbow and neck — along with pendulums and gentle assisted shoulder movement below shoulder height. The rules that matter most: do not lift the elbow above shoulder height, no lifting or carrying with the operated arm, no pushing up through the arm, and no driving while you are wearing the sling.

For your physiotherapist:

Goals

- Protect the fixation and healing bone and soft tissue
- Settle pain and swelling
- Restore passive shoulder range below 90° of elevation
- Maintain full elbow, wrist, hand and cervical range of motion

Management

- Cryotherapy and modalities as needed; analgesia before exercises and sessions
- Check sling fit; educate on sling use (protective wear, especially out of the house; not required overnight per practice convention) and posture
- Pendulums and table slides
- PROM: external and internal rotation in the plane of the scapula to comfort; flexion / scaption / abduction to a maximum of 90°
- AAROM: external rotation with a stick in neutral; supine assisted flexion to 90°
- AROM: elbow, wrist, hand and cervical spine; grip work (ball squeezes)
- From week 2: resisted wrist flexion/extension and forearm rotation; gentle scapular setting and retraction
- Cardio: walking with the arm in the sling; stationary or recumbent bike with the arm in the sling

Precautions

- No active shoulder elevation
- No shoulder flexion or abduction beyond 90°, including passively
- No lifting or carrying with the operated arm; no weight-bearing through the arm
- No driving while wearing the sling

Criteria to progress

- Comfortable passive flexion/scaption to 90° and external rotation to about 30°
- Pain settled below 4/10 at rest
- Full elbow, wrist and hand active range
- Wound healed, with no signs of complication

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Phase II — Early motion (Week 3–6)

The fracture is starting to knit, but it is not yet healed — this phase recovers movement, not strength. The sling is weaned as comfort allows, passive and assisted range progresses towards full, and you begin moving the arm under its own power below shoulder height, along with gentle muscle-activation (isometric) exercises. Keep anything you lift or carry to no more than the weight of a cup of coffee, and avoid any forceful stretching. This phase ends with an x-ray and review with Dr Hirpara at around six weeks — that review, not the calendar alone, opens the gate to strengthening and to movement above shoulder height.

For your physiotherapist:

Goals

- Wean from the sling (discarded by about week 6)
- Progress passive range towards full in all planes
- Establish active range below 90° with good mechanics
- Begin gentle isometric and periscapular work

Management

- PROM: progress towards full range in all planes, to tolerance — no forceful stretching
- AAROM: supine flexion with a dowel progressing towards upright (lawn-chair progression), wall and rail slides, pulleys
- AROM: below 90° elevation, pain-free — supine flexion progressing to standing; seated and side-lying external rotation
- Isometric rotator cuff work in neutral; light periscapular strengthening (scapular retraction, low row, mid row); light biceps and triceps work
- Monitor for compensation patterns (shoulder hitching, scapular substitution)
- Cardio: walking; stationary bike

Precautions

- No lifting or carrying heavier than about a cup of coffee
- No active elevation beyond 90° until fracture healing is confirmed at the six-week review
- No forceful stretching of the shoulder or positions that provoke pain
- No weight-bearing through the arm
- No driving while wearing the sling

Criteria to progress

- Full, or near-full, passive range of motion
- Active elevation to 90° with minimal compensation and pain below 4/10

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- Satisfactory fracture healing on x-ray, as confirmed at the review with Dr Hirpara

Phase III — Strengthening (Week 6–12)

Once your review confirms the fracture is healing well, movement above shoulder height begins and full active range is built up over the following weeks. Strengthening starts gently — muscle-activation work first, then elastic bands, then light weights for the rotator cuff and shoulder blade muscles. Lifting stays light (no more than about 2 kg) until twelve weeks, heavy or overhead lifting waits, and there is no contact sport in this phase. Swimming and cycling typically return during this phase, as guided by your physiotherapist.

For your physiotherapist:

Goals

- Full active range of motion in all planes, with normal mechanics
- Initiate and progress rotator cuff and periscapular strengthening
- Return to normal daily activities

Management

- Progress AROM above 90° in all planes, minimising compensatory patterns
- Stretching as needed: latissimus, pectoral, posterior capsule and sleeper stretches
- Strengthening: isometric cuff work progressing to resisted external/internal rotation with bands, initially below shoulder height; scapular retraction and rows; scaption raises, serratus work and wall push-ups late in the phase
- Light free weights progressing as tolerated — low load, higher repetitions
- Cardio: stationary bike and walking; swimming and running from around 8–10 weeks if cleared at review

Precautions

- No lifting heavier than about 2 kg until 12 weeks
- Avoid heavy lifting overhead or away from the body until 12 weeks
- No contact sport; no plyometric or impact loading until late in the phase (around 10–12 weeks)
- Strengthening stays within the comfortable range and should not provoke pain that lingers

Criteria to progress

- Active range of motion at least 90% of the other side
- Good rotator cuff and periscapular activation, with pain no more than 3/10 on resisted work
- Fracture union progressing on x-ray, as confirmed at review with Dr Hirpara

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Phase IV — Return to full activity and sport (Week 12 onwards)

The final phase is a graduated return to heavier lifting, manual work and sport. Strength work progresses through heavier resistance, overhead positions and — for athletes — plyometric, throwing and sport-specific drills. Contact and collision sport (football, rugby, horse riding) needs a united fracture on x-ray, as confirmed at your review with Dr Hirpara — typically from around three to four months at the earliest, and some protocols stage collision sport as late as six months. Returning before the bone has united risks re-fracture, so this is one gate worth respecting.

For your physiotherapist:

Goals

- Full, pain-free range of motion maintained
- Strength at least 90% of the uninvolved side
- Graduated return to manual work, recreation and sport

Management

- Progressive resistance training, including eccentric loading, overhead positions and functional patterns as tolerated
- Rhythmic stabilisation and proprioceptive work; plyometric and interval throwing or racquet programs for overhead athletes
- Work-specific conditioning for manual workers; sport-specific drills before unrestricted play
- Return-to-sport decision-making individualised — contact versus non-contact, upper-limb demand — and coordinated with the surgeon

Criteria to progress

- Full, pain-free active range of motion
- Strength at least 90% of the uninvolved side on dynamometry, with no pain on strength testing
- Completion of a graded return-to-sport program without pain or apprehension
- Radiographic union confirmed at review with Dr Hirpara before contact or collision sport

After your protocol

The phases above are adapted from published rehabilitation protocols for clavicle fracture fixation — Massachusetts General Brigham Sports Medicine, Mammoth Orthopedic Institute, the University of Colorado (Dr Jonathan Bravman) and Midwest Orthopaedics at Rush (Dr Brian Cole) — together with NHS physiotherapy guidance from West Suffolk and United Lincolnshire, and return-to-sport evidence from a systematic review of clavicle fractures in athletes. The week ranges are typical rather than fixed, and your progression is guided by your physiotherapist and gated on fracture healing at your reviews with Dr Hirpara.

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This page works alongside the practice's general recovery advice — see managing post-operative pain and wound care. For the operation itself, see clavicle fixation.

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