CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

REHABILITATION PROTOCOL

Flexor Tendon Repair

This protocol guides your recovery after surgical repair of a **flexor tendon** in the finger — the cord that runs down the palm side of the finger and bends it into the palm — with Dr Kieran Hirpara at Mater Private Hospital Rockhampton. It begins with your home exercise program, followed by the structured clinical protocol written **for your hand therapist** — bring this page or its PDF to your first therapy visit so your rehabilitation stays coordinated. Your hand therapist 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

A flexor tendon repair stitches the cut ends of the tendon back together so the finger can bend again. The repair is strong enough to move gently straight away, but it is **at its weakest in the first few weeks** while the tendon knits — so the whole plan is built around moving it *just enough* to keep it gliding, without ever loading it hard enough to snap the stitches.

To do this, your hand is rested in a special lightweight splint called the **Manchester short splint**. Unlike older, bulkier splints, it is *short* — it ends at the wrist crease, so your wrist is left free. It lets your **wrist move fully forwards and back to about 45 degrees**, while a small block holds your big knuckles from straightening past about 30 degrees and leaves your finger joints free to move. You wear it **full-time for six weeks**, taking it off only as instructed for exercises and washing.

The clever part is how the wrist is used. When you **bend your wrist forwards**, your finger straightens out almost by itself — this is called the tenodesis effect, and it lets you open the finger fully without your own muscles forcing it. When you **bend your wrist back**, it becomes easier and safer to gently curl the finger. Moving this way keeps the tendon sliding and, crucially, **stops the finger from curling up into a stiff, bent position** — the most common problem after this kind of repair.

The early exercises (from about day 4–5) are gentle and specific: bending the finger passively first, then a light active 'hook' curl starting at the fingertip, then straightening the finger with the wrist bent. There is **no hard gripping and no forced movement** for six weeks. The splint comes off at six weeks, light strengthening starts, and most people return to full unrestricted use of the hand by **ten to twelve weeks**.

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Precautions and limitations

- Wear the **Manchester short splint full-time for six weeks** – take it off only for your exercises and washing, as instructed.
- Do **NOT** make a hard, tight fist and do **NOT** grip, lift, pull or carry anything with the operated hand for the first six weeks – heavy loading can rupture the repair.
- Do **NOT** force the finger straight or force it bent – keep every movement gentle, within the range you have been shown.
- You may use the hand for very light, safe tasks **excluding the injured finger**, as long as nothing pulls or strains it.
- A snap or sudden 'give' with loss of finger bending may mean the tendon has ruptured – contact the rooms straight away if this happens.
- Do **NOT** drive while you are in the splint; driving resumes after the splint is removed (about six weeks), once your grip and control are adequate and you have been cleared.

For wound, swelling and scar management, see the practice's wound care guidance.

Your exercises

Passive fist stretch (IP flexion)

Use your other hand to gently curl the operated finger all the way into a fist, bending the finger joints fully – keep the finger completely relaxed so your other hand is doing all the work. This is done FIRST in every session to keep the finger joints supple and ready to move. It does not pull on the repair because your own muscle stays switched off. Move slowly and stop short of pain.

10 times, at the start of each session, several sessions a day

Active hook fist from the DIP

With your wrist bent back (extended) in or out of the splint, curl your fingertip down first to make a 'hook' – bending the end and middle joints while keeping the big knuckle straight. Hold gently, then release. Starting the curl at the fingertip glides the healing tendon the way it needs to. Use only gentle effort – never force it and never make a hard, tight fist.

10 times, several sessions a day as guided

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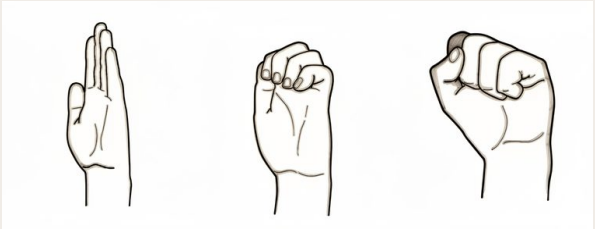

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Tendon glides (hook to straight to full fist)

Move gently through the tendon-gliding sequence: fingers straight, then a hook fist (fingertip curl), then a soft full fist, then back to straight. This keeps both flexor tendons sliding smoothly past each other and the surrounding tissue so they do not stick down. Keep every position light and easy — these are gliding movements, not strengthening, so there should be no straining.

5 of each position, several sessions a day as guided

Finger straightening with the wrist bent (synergy)

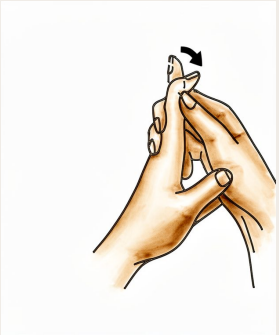
Let your wrist drop forwards (flexed) and then actively straighten your finger out. Bending the wrist this way naturally helps the finger straighten, so the finger extends easily without forcing. This is the key move that stops the finger curling up into a permanent bend — do it faithfully. Straighten only as far as it goes comfortably with the wrist helping; do not lever it straight.

10 times, several sessions a day as guided

Place-and-hold

Use your other hand to gently place the operated finger into a light fist, then let go and hold that position with just a whisper of your own muscle — barely enough to keep the finger there. This wakes the repaired tendon up safely because the hard work of bending is done by your other hand, and your own muscle only has to hold, not pull. Keep the effort tiny; relax fully between repeats.

Hold a few seconds, 5–10 times, only as guided by your hand therapist



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Blocking (later, if adhesions)

A LATER exercise — only if your tendon is sticking down and your hand therapist starts it. Steady your finger by holding the bone just below the joint you want to move, then actively bend that one joint on its own (for example, hold the middle of the finger still and curl just the fingertip). This concentrates the glide at a single joint to free a tendon that has become tethered. Do not start blocking on your own — it is more demanding and is added only when your therapist judges it safe.

As guided by your hand therapist (later phase, only if needed)

These are the exercises from your handout. Start them only as guided by Dr Hirpara and your hand therapist, staying within whatever range and limits you have been given. Every session follows the same safe order: **gently bend the finger passively first**, then do your **active 'hook' curl and tendon glides**, then **straighten the finger with the wrist bent** to keep it from stiffening into a curl. Keep all of it light – this is gliding, not strengthening. Place-and-hold and blocking belong to **later phases** and should only be started when your hand

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therapist introduces them. Stop anything that causes sharp pain over the repair, and never make a hard fist before you are cleared.

Your clinical protocol

The rest of this page is the staged clinical protocol for rehabilitation after flexor tendon repair using the **Manchester short splint and an early-active-motion (EAM) regimen**. This section is to be provided to your hand therapist, and each phase opens with a plain-English explanation of what is happening. The repair is at its weakest in the early weeks and is loaded by **active and resisted finger flexion (a hard fist)**; the protocol therefore protects against forceful flexion while deliberately driving tendon excursion and active IP extension to prevent the flexion contracture that is the principal nuisance complication.

Prior to treatment, check the patient's operation report and past medical history, and liaise with the treating surgeon regarding the zone of injury, the core-suture configuration and strength of repair, any pulley venting, and concurrent digital nerve repair. Dr Hirpara's flexor repairs are managed in a Manchester short dorsal splint (ends at the wrist crease) permitting full wrist flexion and extension to 45°, with the MCP joints blocked at 30° of flexion and the IP joints free, worn full-time for six weeks. Night extension gutters are added only if an IP flexion deformity develops.

PHASE I — EARLY ACTIVE MOTION IN THE MANCHESTER SHORT SPLINT (WEEKS 0 TO 6)

The first six weeks protect the knitting repair while keeping the tendon gliding and the finger from stiffening into a flexion contracture. The hand is splinted full-time in the Manchester short splint (full wrist flexion, extension to 45°, MCP block at 30°, IPs free). Active motion starts around day 4–5. Every session runs in a set order — passive IP flexion first, then active hook fist initiating at the DIP with the wrist extended, then active IP extension with the wrist flexed (synergistic, anti-contracture). No forced end-range and no resisted flexion.

For your hand therapist:

Education and precautions - Splint **full-time in the Manchester short splint**: full wrist flexion, **extension to 45°**, **MCP blocked at 30°**, IPs free; off only for exercises and hygiene - Begin EAM at **day 4–5** - **No forced end-range flexion and no resisted flexion**; no gripping, lifting or pulling - Light "safe" use of the hand **excluding the injured finger** - Night extension gutter only if an IP flexion deformity begins to develop

Management - Wound: surgical dressings as directed; monitor for infection - Oedema: elevation, gentle digital oedema control, manage adhesion risk - Exercise sequence each session: (1) **full passive IP flexion first**; (2) **active hook fist initiating at the DIP with the wrist extended to 45°**; (3) **active finger extension with the wrist flexed** (synergistic / tenodesis, anti-contracture); add **place-and-hold** to a light fist as guided - Hand-therapy review **weekly** through this phase

Criteria to progress - Wound healed; repair intact at six weeks; tendon gliding maintained; no significant IP flexion contracture

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PHASE II — OUT OF THE SPLINT, SOFT-TISSUE AND SCAR WORK (WEEK 6)

At six weeks the splint comes off. The focus shifts to recovering full passive and active range, releasing any early tightness, and managing the scar. Strengthening has not started yet; a night extension splint is used only if a residual flexion deformity remains.

For your hand therapist:

Assessments - Active and passive ROM at MCP/PIP/DIP; presence of any IP flexion contracture; tendon-gliding quality (assess for adhesion); scar and wound review

Education and precautions - **Splint discontinued at six weeks** (night extension splint only for a residual IP flexion deformity) - Progress light functional use; still **no resisted gripping or loading**

Management - Soft-tissue stretching to restore full composite flexion and extension; commence **scar management** once healed - Continue tendon glides; introduce **blocking** if adhesions are limiting differential glide - Progress light functional use of the hand

Criteria to progress - Wound and scar settled; near-full passive ROM; gliding maintained; ready for graded strengthening

PHASE III — STRENGTHENING AND RETURN (WEEKS 6 TO 12)

With the repair more mature, graded stretching and progressive strengthening begin and are built up steadily towards unrestricted use. Return to full, unrestricted activity is expected at around ten to twelve weeks, criterion-based.

For your hand therapist:

Assessments - Composite ROM and any residual contracture; grip and pinch versus the other side; response of the repair to graded loading

Education and precautions - Begin **graded stretching and progressive strengthening** from around six weeks; build load gradually - Avoid sudden maximal grip or resisted loading until strength is rebuilt

Management - Progressive grip and pinch strengthening (putty → graded resistance); continue stretching for any residual tightness; continue scar work as needed - Advance towards **full / unrestricted activity at 10–12 weeks** - Consider discharge once ROM and strength are functional and a suitable return of activity is achieved; refer back to the treating surgeon if recovery plateaus or a flexion contracture persists

Criteria for return to full activity - Functional composite ROM; adequate, near-symmetrical grip and pinch strength; pain-free unrestricted use, typically by 10–12 weeks

Getting back to work and activity

Light, safe use of the hand — **excluding the injured finger** — is encouraged from the start within the splint, as long as nothing pulls, grips or strains the repair. Plan for help in the early weeks, because there is **no gripping,**

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lifting or carrying with the operated hand for the first six weeks. The splint comes off at about six weeks, and light strengthening begins from then.

Because you must **not drive while you are in the dorsal splint**, arrange transport for the first six weeks. Driving resumes **after the splint is removed (about six weeks)**, once your grip and finger control are adequate and you have been cleared at your review. **Return to full, unrestricted activity — including firm gripping and heavier tasks — is expected around ten to twelve weeks**, built up gradually and judged by Dr Hirpara and your hand therapist on how the finger is moving and how strong it is, not by the calendar alone.

After your protocol

This protocol works alongside the practice's general recovery advice — see managing post-operative pain, wound care and scar management. The phased plan above reflects published early-active-motion rehabilitation guidance after flexor tendon repair, and your ongoing recovery is guided individually by Dr Hirpara and your hand therapist according to how your finger progresses.

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