

# Pectoralis Major Repair – Rehabilitation Protocol

This protocol guides your recovery after pectoralis major repair 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. The incision sits close to the armpit crease, where sweat and moisture build up – keep it clean and dry, and report any redness, discharge or fever promptly.

## What to expect

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The pectoralis major is the powerful chest muscle that drives pressing and hugging movements – bench press, push-ups, bringing the arm across the body. Repairing it means re-attaching torn tendon, and the repair is protected by one simple idea: for the first six weeks, the arm stays where the chest muscle is off-stretch and off-load – in front of the body, below shoulder height – and nothing is forced.

How quickly your program advances also depends on how the tendon was repaired (tendon re-attached to bone, or tendon-to-tendon) – your physiotherapist will coordinate the pace with the practice. Progression through this protocol is based on what your shoulder can do comfortably at each stage, not just the calendar.

The journey at a glance:

- **Level 1 exercises** – weeks 1–3
- **Level 2 exercises** – weeks 3–6
- **Progression** – week 6 onwards

Returning to activity:

- **Return to work** – sedentary job: as tolerated; manual job: at least 3 months
- **Driving** – approximately 6–8 weeks
- **Swimming** – breaststroke from 6 weeks; freestyle from 12 weeks
- **Golf** – can start from 3–6 months

- **Lifting** – light lifting can begin at 3 weeks; avoid lifting heavy items for 3 months
- **Contact sport** (e.g. horse riding, football, martial arts, racket sports and rock climbing) – after 6 months
- **Maximal chest loading** (heavy bench press, maximal press-ups) – not before 6 months, and only once strength has returned

## Wearing your sling

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Your sling (shoulder immobiliser) supports the repair while it heals. The rules are simple:

- Wear it for **6 weeks**, especially when out of the house. You don't need to sleep in it.
- Take it off only for showers and for your exercises, once you have been shown how – and whenever the sling is off, keep your arm by your side.
- Resting at home, it can come off if you are sensible about it: arm supported on a pillow while sitting.
- Use ice if the shoulder is swollen or sore, especially after exercise.

Fitting it correctly matters – a loose sling does not protect the repair:

1. Position your elbow right into the corner of the sling, well supported.
2. The end of the sling should rest at the knuckle of your little finger. If your hand extends further out, the sling is not supporting you properly.
3. The sling has two Velcro straps – one for your neck, one for your waist.
4. With your elbow and forearm positioned, use your non-operated arm to swing the upper strap around your neck and attach it through the upper loop.
5. Attach the lower strap around your waist through the lower loop the same way.

While you are in the sling, watch your posture. Keep your ears, shoulders and hips in line and avoid letting your shoulders slump – good posture protects your back and helps prevent your shoulder stiffening. A rolled-up towel in the small of your back when sitting is a useful reminder.

## The safe zone

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Through the first six weeks, all shoulder movement stays inside a protected **safe zone** – the positions where the repaired chest muscle is neither stretched nor working hard:

- the arm stays **in front of the plane of the body** – the elbow never travels back behind the line of your chest;
- movement stays **below shoulder height**;
- the arm is **not taken out to the side and rotated outward at the same time** (the combination that stretches the pectoralis major most);
- nothing is forced or stretched.

Your physiotherapist will show you these limits in person. The safe zone shrinks the load on the repair to almost nothing while still letting the shoulder move enough to stay supple.

## Phase I – Level 1 exercises (Weeks 1–3)

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The first weeks are about protecting the repaired tendon while it heals. You will be in the sling, and shoulder movement is gentle – passive or assisted only, kept within the safe zone, and never forced. Unusually for shoulder surgery, pendulum (arm-dangling) exercises and stick exercises are *avoided* after pectoralis major repair – letting the arm dangle or levering it with a stick pulls on the repaired tendon. Your hand, wrist, fingers and elbow keep moving normally throughout.

### For your physiotherapist:

#### Goals

- Protect the surgical repair
- Settle pain and swelling
- Maintain hand, wrist and elbow range of motion
- Establish gentle shoulder motion within the safe zone

#### Management

- Shoulder immobiliser
- Closed chain exercise as tolerated
- Passive / active-assisted range of motion (ROM) within the safe zone as tolerated
- Wrist/hand/finger exercises
- Elbow flexion/extension, pronation/supination
- Scapula setting exercises
- Scar massage once the wound is closed and dry

#### Precautions

- Do not force or stretch
- Keep all movement within the safe zone – no extension behind the plane of the body, no combined abduction and external rotation
- Avoid pendular exercises and stick exercises

#### Criteria to progress

- Comfortable assisted movement within the safe zone
- Wound settled
- Pain controlled

**Level 1 exercises (under 20% intensity).** Not all of the exercises have been investigated and the information is intended only as a guide when choosing exercises – choose from this list only those consistent with the precautions above (the generic level table’s pendulum and bar exercises are excluded for pectoralis major repair). R = range of motion, S = strengthening, P = proprioception, C = core.

Exercise	R	S	P	C
Flexion in side lying	X		X	
Flexion using the ball	X		X	
Abduction using the physio ball	X		X	
Flexion on the table	X		X	
Abduction on the table	X		X	
External rotation on the table	X			
Flexion in standing	X		X	
Abduction in standing	X		X	
Pulleys	X			
Posterior capsular stretch	X			
Prayer position			X	
Balance point in lying flexion	X	X	X	
Balance point in lying abduction	X	X	X	
External rotation in standing	X		X	
Internal rotation in standing	X		X	
External rotation lying	X		X	
4-point kneeling over physio ball			X	

## Phase II – Level 2 exercises (Weeks 3–6)

The repair is healing, and gentle muscle-activation work begins: isometric exercises (tensing the muscle without moving the joint) in a neutral position, as pain allows – for the muscles *around* the shoulder, not yet for the repaired chest muscle itself. During this phase the sling is gradually weaned off, and exercises progress from supported (closed chain) to unsupported (open chain) movement – still within the safe zone. The same rules carry over: nothing forced, nothing stretched, and still no pendulum or stick exercises.

### CQ HAND + UPPER LIMB

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## For your physiotherapist:

### Goals

- Wean from the sling by week 6
- Progress to active movement within the safe zone without substitution patterns
- Begin periscapular and rotator cuff activation

### Management

- Gentle isometric exercises in neutral as pain allows – external rotation, abduction and extension
- Defer internal-rotation and pectoralis isometrics to Phase III (internal rotation is the repaired muscle's own action)
- Wean off sling
- Progress to open chain exercises in the safe zone as tolerated

### Precautions

- Do not force or stretch
- Keep all movement within the safe zone
- No resisted internal rotation or horizontal adduction
- Avoid pendular exercises and stick exercises

### Criteria to progress

- Out of the sling
- Active movement within the safe zone with minimal substitution
- Isometrics pain-free

**Level 2 exercises (21–40% intensity).** Not all of the exercises have been investigated and the information is intended only as a guide when choosing exercises – internal-rotation isometrics are deferred to Phase III for pectoralis major repair. R = range of motion, S = strengthening, P = proprioception, C = core.

Exercise	R	S	P	C
Isometric exercises in sitting external rotation		X		
Isometric exercises in sitting abduction		X		
Isometric exercises in sitting external rotation through range		X		
Unilateral shoulder flexion in 4-point kneeling		X	X	X

## Phase III – Progression (Week 6 onwards)

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From six weeks the restrictions ease: movement progresses through all ranges as tolerated, resistance is built up progressively, and rehabilitation becomes specific to your sport or activity. The repaired muscle itself now starts to work – gently at first, beginning with the muscle in a shortened (relaxed) position and progressing toward a lengthened one. Resisted chest work (pressing, flyes, resisted internal rotation) waits until **week 12**.

Two gym rules then matter for a long time, because they load the repaired tendon in exactly the way that tears it: do not hyperextend – letting the elbows travel back past the line of your body at the bottom of the movement – in the bench press, flyes or pec-deck, and avoid high weights with low repetitions. Always warm up slowly. Maximal chest loading is deferred to six months.

### For your physiotherapist:

#### Goals

- Full range of motion in all planes
- Graduated restoration of strength, endurance and neuromuscular control, including the pectoralis major
- Sports-specific conditioning and a graduated return to activity

#### Management

- Progress to open chain exercises in all ranges as tolerated
- Pectoralis major and internal-rotation isometrics from week 6 – starting in a shortened position, progressing toward a lengthened position
- Resisted internal rotation, horizontal adduction and progressive pectoralis isotonic from week 12
- Progressive resistance
- Sports-specific rehabilitation

#### Precautions

- No resisted pectoralis work (pressing, flyes, resisted internal rotation, resisted horizontal adduction) before week 12
- Avoid hyperextending in bench press or flyes or pec-deck
- Avoid high weights with low reps, and warm up slowly
- Maximal chest loading (heavy bench press, maximal press-ups) deferred to 6 months

**Level 3 exercises (over 40% intensity).** Not all of the exercises have been investigated and the information is intended only as a guide when choosing exercises. R = range of motion, S = strengthening, P = proprioception, C = core.

Exercise	R	S	P	C
Theraband isometric external rotation long lever		X	X	

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#### CQ HAND + UPPER LIMB

Exercise	R	S	P	C
Diagonal pattern exercise with theraband		X	X	
Diagonal pattern exercise with free weights and step		X	X	X
Dynamic hug with theraband and ball		X	X	X
Diagonal pattern abduction in elevation to adduction with exercise band		X	X	
Diagonal pattern adduction in elevation to abduction with exercise band		X	X	
Diagonal pattern adduction to abduction in elevation with exercise band		X	X	
Diagonal pattern abduction to adduction in elevation with exercise band		X	X	

The exercise levels are based on those described by Lennard Funk and his team from the Wrightington Shoulder Unit and his private practice in Manchester, UK. They can be found at [shoulderdoc.co.uk](http://shoulderdoc.co.uk), and the exercises are in his freely available book at <https://view.publitas.com/shoulderdoc/shoulder-rehab/page/1>. The phase structure is additionally informed by published pectoralis major repair protocols, including the Massachusetts General Brigham Sports Medicine protocol.

## After your protocol

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This protocol works alongside the practice's general recovery advice – see [managing post-operative pain](#) and [wound care](#).

### REFERENCES

1. Massachusetts General Brigham Sports Medicine. Rehabilitation Protocol for Pectoralis Major Repair.
2. Funk L. Shoulder Rehabilitation. Wrightington Shoulder Unit / [shoulderdoc.co.uk](http://shoulderdoc.co.uk).