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POST-OPERATIVE PATHWAY

# Latarjet Rehabilitation Protocol

*A phased, criterion-led pathway for recovery after the open Latarjet coracoid transfer — designed to protect the reconstruction, restore motion with restraint, and return patients safely to the things they value most.*

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<b>Procedure</b>	Open Latarjet coracoid transfer
<b>Sling</b>	6 weeks (day and night)
<b>Return to sport</b>	5 – 6 months (criterion-based)
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§ 01 — BACKGROUND

## Why the Latarjet, and why rehabilitate it differently

*The Latarjet is a bony procedure with a soft-tissue soul. Rehabilitation has to respect both.*

The Latarjet procedure transfers the coracoid process and its conjoint tendon to the anterior glenoid rim. It is indicated in patients with recurrent anterior instability, particularly where there is significant glenoid bone loss (typically greater than 20%), an engaging Hill–Sachs lesion, or a high-risk ISIS score.

Because the operation involves a subscapularis split, a transferred bone block, and two fixation screws, the early rehabilitation must balance **bone-block healing** against the risk of **stiffness and subscapularis dysfunction**. External rotation is progressed with

particular care — loss of external rotation is the most common functional limitation reported after this procedure.

The protocol below is time-based and criterion-based. Progression through each phase requires both the expected healing interval and demonstration of the clinical criteria listed. If a patient is not meeting milestones, please contact the clinic before advancing.

## § 02 — THE PHASED PATHWAY

# Five phases, one shoulder

### PHASE I · WEEKS 0 – 6

## Protection & Early Motion

### GOALS

- Protect the coracoid transfer and fixation
- Control pain, swelling and inflammation
- Prevent the negative effects of immobilisation
- Begin early, protected passive range of motion within safe zones
- Maintain elbow, wrist and hand mobility

### PRECAUTIONS · SLING WORN FOR 6 WEEKS

- Sling continuously for 6 weeks, including at night. Remove only for hygiene, dressing, elbow/wrist exercises and supervised physiotherapy.
- No active shoulder movement in any plane until week 5
- No passive external rotation beyond neutral (0°) until week 5
- No combined abduction and external rotation
- No lifting, pushing, pulling or bearing weight through the arm
- No driving while the sling is in use

### INTERVENTION · WEEKS 0 – 2

- **Mobility** — elbow, wrist and hand active range of motion; pendular exercises; gentle passive flexion and scapular-plane elevation within comfort
- **Passive ER** — only to neutral (0°), arm at side
- **Strength** — hand gripping exercises; postural scapular setting
- **Pain & swelling** — cryotherapy, elevation; analgesia as prescribed

- **Education** — axillary hygiene, sleeping position, safe dressing

#### **INTERVENTION · WEEKS 3 – 4**

- Commence active-assisted range of motion: table slides, pulley flexion and scaption, cane-assisted work
- Passive flexion progressed to 120°; IR to 45° in the scapular plane; ER still restricted to neutral
- Submaximal, pain-free shoulder isometrics at the side in neutral rotation (flexion, extension, abduction, IR, ER)
- Begin scar mobilisation once the incision is fully healed and dry
- Core stability and lower-limb conditioning as able

#### **INTERVENTION · WEEKS 5 – 6**

- Begin active range of motion with minimal pain, avoiding substitution patterns
- Flexion progressed to tolerance; IR to 50° at 30° abduction
- External rotation now progressed to 45° at the side and at 30° of abduction
- Continue isometrics; begin gentle scapular retraction and protraction work
- Discharge the sling at the end of week 6

#### **CRITERIA TO PROGRESS**

- Pain well controlled with minimal tenderness over the scar
- Passive flexion  $\geq 120^\circ$ ; ER to 45° at side; IR to 50° at 30° abduction
- Good scapular control with early active movement
- Wound healed, no signs of infection

#### **PHASE II · WEEKS 7 – 8**

### **Motion Restoration**

#### **GOALS**

- Continue improving active, active-assisted and passive range
- Preserve the integrity of the reconstruction
- Tolerate the addition of beginner-level isotonic strengthening

#### **PRECAUTIONS**

- Avoid aggressive end-range external rotation stretching
- Avoid loaded positions that place excessive stress on the anterior capsule or subscapularis
- No contact activities, impact loading or weight-bearing through the arm

## INTERVENTION

- Progress AAROM / AROM / PROM as tolerated — ER remains gentle
- Begin beginner isotonic strengthening in all planes: scaption to 90°, sidelying external rotation within limits, supine and wall scapular protraction/retraction, prone rows at 30°, 45° and 90° abduction
- Stretching: cross-body adduction, gentle sleeper stretch
- Manual therapy: soft-tissue work, scar mobilisation, gentle glenohumeral and scapulothoracic mobilisation

## CRITERIA TO PROGRESS

- AROM and PROM progressing consistently
- Good scapulohumeral rhythm within available range
- Phase I activities performed without pain

## PHASE III · WEEKS 9 – 12

# Strength & Control

## GOALS

- Gradually restore full active and passive range of motion
- Rebuild muscular strength and balance around the shoulder girdle
- Enhance neuromuscular control, proprioception and kinaesthesia
- Protect the reconstruction during progressive loading

## PRECAUTIONS

- Avoid aggressive overhead strengthening that overstresses the anterior capsule
- No contact sport or collision loading

## INTERVENTION

- Progressive isotonic strengthening with added resistance: biceps curls, IR at 0° progressing to 90° abduction
- ER progression: ER at 0°, bilateral “W”s, ER at 90° abduction
- Scapular protraction/retraction in quadruped progressing to plank
- Standing rows: low rows, 45°, then 90° abduction
- Push-up progression: wall → incline → knees → floor
- Prone horizontal abduction; wall “Y”s progressing to prone “Y”s
- PNF patterns with light manual resistance, progressing to resistance bands

- Rhythmic stabilisation and open- and closed-chain proprioception work
- Joint mobilisations as indicated; address any posterior capsule tightness

#### CRITERIA TO PROGRESS

- Full pain-free ROM (ER may still lag slightly)
- Satisfactory stability and no apprehension
- Strength  $\geq$  60% of contralateral side (limb symmetry index)
- Normal scapulohumeral mechanics throughout range

#### PHASE IV · WEEKS 13 – 20

### Advanced Strength & Sport Preparation

#### GOALS

- Maintain full ROM with continued stretching
- Develop muscular power and endurance
- Gradually introduce sport-specific movement patterns

#### PRECAUTIONS

- Continue to avoid end-range loading of the anterior capsule
- Progress contact exposure only under supervision

#### INTERVENTION

- Capsular and horizontal adduction stretching; ER at 90° abduction; IR behind back
- PNF resisted patterns, progressing to higher speeds
- Shoulder-specific endurance training
- Plyometrics: wall push-ups, high-kneeling plyometric push-ups, two-handed med-ball catches and throws in half-kneeling
- Light sport activity: light swimming (breaststroke from week 6, freestyle around week 12), half golf swings
- Initiate a formal interval return-to-sport programme around weeks 16 – 18

#### CRITERIA TO PROGRESS

- Full, pain-free functional ROM
- No subjective instability or apprehension
- ER and IR strength  $\geq$  80% of contralateral side on dynamometry
- $\geq$  80% performance on functional field testing

- All milestone criteria met and consultant clearance obtained

#### PHASE V · WEEKS 21 – 28

## Return to Sport

### GOALS

- Optimise muscular strength, power and endurance
- Return to full unrestricted training and competition
- Complete psychological readiness assessment (SIRSI)

### PRECAUTIONS

- Graduated exposure to contact — avoid unsupervised collision drills until cleared
- Continue maintenance strength and mobility programme

### INTERVENTION

- Ongoing soft-tissue work and stretching to maintain range
- Loaded strengthening: modified bench press with block, narrow-grip barbell work, progressive overhead lifting
- Advanced plyometrics: unilateral med-ball catch/throw, rebounder work, overhead dribbles, deceleration catches, prone 90/90 ball drops
- Full sport-specific drills and gradual exposure to contact or collision

### CRITERIA TO PROGRESS

- ER and IR strength  $\geq$  90% of contralateral side
- $\geq$  90% performance on sport-specific field testing
- $\geq$  90% on patient-reported outcome measures (WOSI, DASH, Oxford Shoulder)
- SIRSI score demonstrating psychological readiness to return
- Formal consultant sign-off

#### § 03 — RETURN TO DAILY LIFE

## Return to function

These are typical milestones for return to common activities. They assume a straightforward recovery and are dependent on sling discharge at six weeks and satisfactory progress through each phase.

<b>Desk / sedentary work</b>	From 1 – 2 weeks, with sling in place
<b>Manual work</b>	3 months (may be longer for heavy manual labour)
<b>Driving</b>	6 – 8 weeks, after sling discharge and only when safe in an emergency
<b>Swimming (breaststroke)</b>	From 6 – 8 weeks
<b>Swimming (freestyle)</b>	From 12 weeks
<b>Running / stationary cycling</b>	From 6 – 8 weeks once sling is off
<b>Gym – lower body</b>	From 6 weeks (no upper-limb loading)
<b>Golf</b>	Putting and chipping from 3 months; full swing from 4 – 5 months
<b>Contact / collision sport</b>	From 5 – 6 months, subject to criteria-based clearance
<b>Overhead &amp; throwing sport</b>	From 5 – 6 months via interval throwing programme

#### § 04 — WHAT THE EVIDENCE SAYS

## The science behind the schedule

The Latarjet procedure has some of the best long-term stability outcomes in shoulder surgery. The evidence base for post-operative rehabilitation, however, remains heterogeneous — criterion-based progression through clearly defined phases is increasingly recommended over time-only clearance.

<b>83.6%</b>	Pooled return-to-sport rate after open Latarjet across systematic reviews
<b>5.1 months</b>	Mean time to return to play (range 3 – 8 months)
<b>~ 7%</b>	Recurrent instability rate in contemporary reviews
<b>&lt; 3%</b>	Bone-block non-union rate typically quoted in the literature

### Key principles supported by the evidence

- **Sling immobilisation** — every published protocol recommends a sling, though durations vary from 2 to 6 weeks. Longer immobilisation (4 – 6 weeks) is favoured where subscapularis healing is a concern.
- **Early protected motion** — passive flexion and scapular-plane elevation within safe ranges, combined with distal joint mobility, reduces stiffness without compromising fixation.
- **External rotation restraint** — loss of ER is the commonest functional limitation after Latarjet; ER is protected until week 5 – 6 and then progressed gradually.
- **Criterion-based progression** — time-only clearance at 5 – 6 months misses residual deficits. A battery of strength, endurance and functional tests is more reliable.
- **Psychological readiness** — fear of reinjury and lack of confidence are leading reasons for failure to return to sport. Formal SIRSI assessment is strongly recommended before clearance.

#### IMPORTANT

*This protocol is a guide, not a prescription. Rehabilitation after the Latarjet procedure must be individualised based on the surgical findings, the integrity of the subscapularis, the size and fixation of the bone block, and the patient's goals. Physiotherapists should liaise directly with the operating surgeon if there is any uncertainty about progression, any concern about the wound or the reconstruction, or any failure to meet the milestones described. In the event of new pain, swelling, fever, loss of motion or a sense of instability, the patient should contact the clinic immediately.*

#### § 05 — REFERENCES

## Further reading

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