

## Protocol: Post-Operative ACL Reconstruction Rehabilitation Protocol (Hamstring or Patellar Tendon Autograft)

**Disclaimer & Your First Step:** This document is an excellent educational resource, but it is not a substitute for a personalised treatment plan. A successful recovery depends on a program tailored specifically to your body, your surgery, and your goals. At Peninsula Physio and Rehab, our expert therapists specialise in creating these plans. To ensure your safety and maximise your recovery, book a one-on-one consultation before starting any exercise program. Think of this document as the map, and your dedicated physiotherapist as the expert guide for your journey.

### Overview:

The goal of Anterior Cruciate Ligament (ACL) reconstruction rehabilitation is to restore knee stability, strength, and function, allowing a safe return to your pre-injury life. Navigating this process alone can be daunting, and missteps can lead to setbacks. At Peninsula Physio and Rehab we are committed to guiding you through each phase, helping you with every milestone safely and efficiently. Progression is based on achieving specific clinical criteria, which your physiotherapist will expertly assess.

### Phase 1: Immediate Post-Operative (Week 0-2)

- Goals:
  - Protect the graft and surgical site.
  - Minimise pain and swelling (effusion).
  - Achieve full passive knee extension (0 degs)
  - Achieve at least of knee flexion.
  - Activate quadriceps (VMO) and establish neuromuscular control.
  - Maintain patellar mobility.
- Precautions:
  - Weight-bearing as tolerated (WBAT) with crutches, unless specified otherwise by the surgeon.
  - Knee locked in extension in a brace for ambulation.
  - No active open-chain knee extension (e.g., leg extensions).
  - No unsupported pivoting.
- Interventions:
  - Range of Motion: Passive knee extension hangs, heel slides (supine or seated), patellar mobilisations.
  - Swelling/Pain Management: Cryotherapy (ice), compression, elevation.
  - Strengthening: Quadriceps sets (static contractions), gluteal sets, straight leg raises (in brace), ankle pump

## Phase 2: Early Strengthening & Neuromuscular Control (Week 2-6)

**Criteria to Progress: Minimal swelling, full passive extension, >110° flexion, good quadriceps control.**

- Goals:
  - Achieve full active range of motion.
  - Wean off crutches and normalise gait pattern.
  - Initiate closed-chain strengthening.
  - Improve proprioception.
- Precautions:
  - Avoid pain with all exercises.
  - No open-chain resistance on the tibia.
- Interventions:
  - Range of Motion: Continue with Phase 1 exercises to achieve full ROM.
  - Strengthening: Stationary cycling (low resistance), mini-squats (0-45°), leg press (0-90°), hamstring curls, calf raises.
  - Neuromuscular Control: Single leg balance (on stable surface), weight shifting drills.

### Expert Guidance from Peninsula Physio & Rehab

Are you ready for the next phase? Knowing precisely when to progress is key to avoiding setbacks. Our therapists use specific strength tests using our AXIT system, movement analysis, and hands-on assessment to confirm your readiness, taking all the guesswork out of your recovery. Don't guess, let us assess. Book an appointment to ensure you're on the right track.

## Phase 3: Progressive Strengthening & Control (Week 6-12)

**Criteria to Progress: No pain, full ROM, normalised gait, good strength on manual testing.**

- Goals:
  - Improve lower limb strength to >70% of the contralateral side.
  - Enhance endurance and cardiovascular fitness.
  - Introduce multi-planar and sport-specific movements.
- Interventions:
  - Strengthening: Increase resistance on leg press and squats, single-leg squats, lunges (all planes), step-ups/downs, bridging progressions.
  - Proprioception: Single leg balance on unstable surfaces (e.g., foam pad), tandem walking.
  - Cardio: Elliptical trainer, swimming (flutter kick only).

## Phase 4: Advanced Strengthening & Return to Sport Preparation (Month 3-6)

**Criteria to Progress: Strength >85% of the uninjured side, confidence in movement, clearance from your therapist.**

- Goals:
  - Develop power, agility, and sport-specific strength.
  - Safely begin a running program.
- Interventions:
  - Plyometrics: Box jumps, broad jumps (initially two-legged).
  - Agility: Ladder drills, cone drills.
  - Running: A structured walk/jog program, supervised by your therapist to ensure proper mechanics.

## Phase 5: Return to Sport (Month 6-9+)

**Criteria to Progress: Successful completion of a return-to-sport functional testing battery, strength >90–95% of the uninjured side, psychological readiness.**

- Goals:
  - Safely re-integrate into unrestricted training and competition.
  - Minimise the risk of re-injury through ongoing conditioning.
- Interventions:
  - This final phase is heavily individualised. Your Peninsula Physio therapist will work with you to simulate the specific demands of your sport, ensuring your knee is 100% ready for competition.

## Take the Next Step in Your Recovery

Alright, we've received your "Official Recovery Protocol," and frankly, it reads with the seriousness of a top-secret space launch!

While the plan might be a bit dramatic, our actual objective is much clearer and way less complicated: to be your personal pit crew, cheering you on and helping you get back in the race. Your recovery is our only finish line.

Don't leave your recovery to chance. Contact us today.