



## POST-SURGICAL PCL REHABILITATION PROTOCOL:

This is an outline of the major exercises that are commonly incorporated. Individual patient response should be considered and therefore modifications may need to be made. Communication should be made to the Surgeon if concerns arise during rehabilitation.

The overall goals of the reconstruction and rehabilitation are to:

- Control joint pain, swelling, hemarthrosis (minimal or none).
- Regain normal knee flexion and extension.
- Regain a normal gait pattern and neuromuscular stability for ambulation.
- Regain normal quadriceps, hamstring lower extremity muscle strength.
- Regain normal proprioception, balance, and coordination for desired activities.
- Achieve optimal functional outcome based on orthopaedic and patient goals.

## POST-OP DAYS 1 – 7 (20 REPS)

### GOALS:

- Pain reduction
- AAROM 0-45 degrees.
  - o Good quad control.
  - o Brace x 3 months – Locked in extension x 2 weeks.
  - o Walking with walker using long knee brace.
  - o AAROM – 0-45 degrees pain free knee bending.
  - o Calf pumping/ Ankle toe exercise.
  - o Passive extension to 0 degrees, no hyperextension.
  - o Isometric quads, Co-contractions quads / Hamstrings.
  - o Straight leg raise (SLR) assisted with brace on.
  - o Hip abduction and adduction.
  - o Pillow under the proximal posterior tibia to prevent posterior sag.
  - o Ice Pack application 15mins every 3hours with knee in full extension, compression and elevation.

## DAYS 8 – 14 (20 REPS)

### GOALS:

- AAROM 45-60 degrees.
- Good quad control.
- Walking with tripod.
  - o Same as above.
  - o Glutes activation.
  - o Calf strengthening.
  - o Knee extension edge of the bed.
  - o Walking with tripod and staircase climbing.
  - o Ice application as prescribed.

## Weeks 2 – 4

### GOALS:

- AAROM 60-90degrees.

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- No extensor lag.
  - Hinge/Functional knee brace as per your surgeon.
  - Continue appropriate previous exercises.
  - AAROM – 60-90 degrees.
  - **No Hamstring curls or Stationary bike x 8 weeks**
  - Scar mobilisation when incision healed.
  - Double leg heel raises in brace (supported in parallel bars)
  - Weight shifts, Mini squats 0-30 degrees, in brace (supported in parallel bars)

## WEEKS 4 –6

### GOALS:

- AAROM 90-110 degrees.
- No effusion.
  - Continue appropriate previous exercises.
  - AROM by patient 110 degrees.
  - **No Hamstring curls or Stationary bike x 8 weeks.**
  - Multi-angle Co-contractions quads / HS at 0, 20, 40, 60 degrees
  - SLR on mat, out of brace, no weights.

## WEEKS 6 – 8

### GOAL:

- AAROM 125 to full degrees.
  - Re educating gait pattern and D/C tripod.
  - Continue appropriate previous exercises and the following ex without brace.
  - **No Hamstring curls or Stationary bike x 8 weeks.**
  - SLR on mat with light weight below the knee.
  - SAQ – 0-30 degrees with light ankle weights.
  - Double leg heel raises.
  - Wall squats 0-45 degrees.
  - Forward, retro and lateral step downs in parallel bars (small step).
  - Proprioceptive training – Single leg standing in parallel bars.
  - Elliptical trainer – No resistance.

## WEEKS 8 – 12

### GOALS:

- Full painfree ROM.
- Normal Gait.
  - Continue appropriate previous exercises
  - Forward, retro and lateral step downs – medium step
  - Single leg heel raises
  - Hamstring curls – 0-60 degrees, in prone.
  - Progress to weight machine, 0-60 degrees (up to ¼ body weight)

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- o Stationary bike for ROM – No resistance
- o Treadmill – Forwards and backwards walking
- o Elliptical Trainer with minimal resistance
- o Pool therapy – Walking / running (no kicking)

## MONTHS 3 – 4

### GOALS:

- Walk 2 miles at 15 min/mile pace.
  - o Continue appropriate previous exercises with progressive resistance.
  - o PROM, AAROM, AROM to regain full motion.
  - o Leg press with resistance as tolerated.
  - o Hamstring curl with low weight and high reps.
  - o Knee extension weight machine through full range with resistance as tolerated.
  - o Stationary bike – Progressive resistance and time.
  - o Elliptical trainer for progressive resistance and time.
  - o Treadmill – Walking progression program.
  - o Pool therapy – Swimming laps.

## MONTHS 4 – 6

### GOALS:

- Run 2 miles at easy pace.
- Return to all activities.
  - o Continue appropriate previous exercises.
  - o Agility drills / Plyometrics.
  - o Sit-up progression.
  - o Treadmill – Running progression program.
  - o Quad stretches.
  - o Transition to home / gym program.



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