



# Posterior Cruciate Ligament (PCL) Rehabilitation Protocol - Repair

## General considerations:

- Patients are weight bearing as tolerated with crutch use as needed post-operatively
- Range of motion will be blocked from 0-20 degrees in a brace for ADL's and all exercises for 4 weeks
- Important not to push for extension past 0 degrees for 6-8 weeks post-op to protect capsular repair
- No resisted knee flexion exercises for 6-8 weeks post-op
- Regular manual and self-mobilization of the patella, patella tendon, and portals should be performed to prevent fibrosis
- Return to sport and activities are dependant upon passing a functional, sports test

## Week 1:

- M.D., office visit day 1 for dressing change, review of medications and instruction on a home program
- Gait training, pain and edema control, and muscle stimulation to improve quadriceps recruitment
- Ankle pumps, quad and adduction sets, leg raises in multiple planes (except hip extension)
- Mild isometric resisted knee extension. General stretching program
- Well-leg stationary cycling and UBE. Upper body weight machines and trunk exercises

## Weeks 2-4:

- Progress weight bearing and functional mobility as able to demonstrate good mechanics
- Passive extension stretching to 0 degrees only to protect the capsular repair.
- Submaximal quad, glute and abduction/adduction isometrics within the range restrictions
- Knee bends (0-20 degrees), calf raises, weight shifting, ankle exs., balance and proprioception exercises
- Patella, suprapatellar pouch and scar mobilization regularly.
- Short range stair machines as able. Pool walking and workouts as soon as incisions are well-healed

### Weeks 4-6:

- Brace from 0-70 degrees for day-to-day activities and exercises
- Submaximal quad and knee extension isometrics through multiple ranges
- Prone hip extension exercises in extension only
- Light resistance leg press within range restrictions, abduction/adduction, and hip machines at the gym
- Increase depth of weight shifting, knee bends, step-ups and proprioceptive exercises within range. -Initiate two-legged bicycling for range of motion only and without resistance

### Weeks 6-8:

- Increase range of motion to full in the brace and wean off when range of motion is 0-120 deg
- Introduce hamstring curls against gravity without resistance. Focus on eccentrics
- Continue to increase intensity and resistance of other exercises
- Goals are to increase passive and functional range of motion

### Weeks 8-12:

- Continue with all exercises
- Add lateral exercises (i.e. lateral stepping, lateral step-ups, etc.)
- Begin hamstring flexion exercises against light resistance (i.e. open-chain, hamstring curls)
- Continue all exercises with emphasis on closed-chain, functional and proprioceptive program
- Fit for functional PCL brace. To be used with sporting activities and more ballistic rehab exercises
- Increase resistance of cycling, stair machine, and pool programs

### Weeks 12-16:

- Goals are to increase strength, power, and cardiovascular conditioning
- Sport-specific exercises and training program
- Maximal eccentric focused strengthening program
- Begin light running program as able to demonstrate good strength and mechanics

#### 4-6 Months:

- Goals are to develop maximal strength, power, and advance to sporting activities
- Resisted closed-chain rehabilitation through multiple ranges
- Running program, balance drills and agility program
- Initiate plyometric training as able to demonstrate adequate strength and proper mechanics