

## Posterior Cruciate Ligament Reconstruction Post-Operative Physical Therapy Protocol

### **General considerations:**

Patients are weight bearing as tolerated with crutch use as needed postoperatively. Patient will use a hinged brace LOCKED IN FULL EXTENSION for 4 weeks postop. It is to be used when up and moving around and not needed for controlled exercises or sleeping.

Early emphasis should be placed on achieving full passive terminal extension equal to the opposite side.

\*No resisted knee flexion exercises for 4 weeks postop.

Regular manual care of the patella, patella tendon, and portals should be performed to prevent fibrosis.

All times should be considered approximate with actual progression based upon clinical presentation.

Passive flexion (bending) once or twice per day to maintain motion.

### **Week 1**

#### **Manual**

Tubigrip for oedema, soft tissue mobilization to surrounding tissues, gentle range of motion.

“No touch zone” 2 inches from incisions/portals x 4 weeks.

#### **Exercise**

Gait training, pain and oedema 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 (between 0-60 degrees).

Well leg stationary cycling for cardiovascular. Upper body weight machines and trunk exercises.

#### **Goals**

Decrease pain and oedema.

Gait weight bearing as tolerated with brace locked in full extension x4 weeks.

## **Weeks 2-4**

### **Manual**

Continue with tubigrip, soft tissue mobilization, patellar glides, range of motion.

### **Exercise**

Progress weight bearing and functional mobility as able.

Passive flexion and extension stretching. Push for full hyperextension within this time.

Prone hip extension exercises performed in full knee extension only.

Submaximal quad, knee extension and adduction isometrics in multiple ranges.

Short range (0-60 degrees) squats/knee bends, calf exercises, standing hip exercises.

Balance and proprioception exercises. Weight machines consisting leg press, calf raises, hip machines and abduction/adduction.

Progress to two-legged cycling and short range stair machines as able.

### **Goals**

Decrease pain and oedema.

Progress weight bearing as able with focus on good gait mechanics, brace locked in full extension x 4 weeks.

## **Weeks 4-6**

Specialist appointment at 6 weeks, wean off the use of the brace.

### **Manual**

Continue with soft tissue, joint mobilizations, patellar glides.

### **Exercise**

Introduce hamstring curls against gravity without resistance. Focus on eccentrics.

Gradually increase the depth of knee bends, step exercises and proprioception exercises.

Add toe straps and gradual resistance with stationary bike.

Swimming and pool workouts as soon as incisions are well healed.

### **Goals**

Gait full weight bearing, good mechanics with no brace.

Range of motion 80% of nonsurgical leg.

## **Weeks 6-8**

### **Manual**

Continue with soft tissue, joint mobilizations, patellar glides to increase range of motion.

## **Exercise**

Add lateral training exercises (i.e. lateral stepping, lateral stepups).  
Continue to increase the intensity and resistance of other exercises.  
Passive range of motion should be near normal.

## **Goals**

Full range of motion.

## **Weeks 8-12**

Begin hamstring flexion exercises against light resistance (i.e. openchain, hamstring curls).  
Continue to increase functional exercises, endurance, strength, and proprioceptive type exercises.

## **Goals**

Initiate sport specific training drills.

## **Weeks 12-16**

Sports Test 1, initiate return to run program.

## **Goals**

Are to increase strength, power and cardiovascular conditioning.  
Sport specific exercises and training program.  
Maximal eccentric focused strengthening program.  
Fit for functional PCL brace to be used for sporting activities and more ballistic rehabilitation training.

## **Goals**

Pass Sports Test 1.  
Return to low impact activities, slow progression to higher impact activities.

## **4-6 months**

Goals are to develop maximal strength, power and advance to sporting activities.