

THE STONE CLINIC

ORTHOPAEDIC SURGERY, SPORTS MEDICINE AND REHABILITATION

Posterior Cruciate Ligament Reconstruction

Post-Operative Physical Therapy Protocol

General considerations:

- -Patients are weight bearing as tolerated with crutch use as needed post-operatively.
- -Patients will use a hinged brace <u>LOCKED IN FULL EXTENSION</u> for 4 weeks post-op. 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 post-op.
- -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:

-M.D./Nurse appointment for dressing change day 2, review of home program.

Manual: -Effleurage for edema, 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 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 (between 0-60 degrees).

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

Goals:

Decrease pain and edema.

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

Weeks 2-4:

Manual: -Continue with effleurage, 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 edema.

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



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Weeks 4-6:

MD appointment at 4 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 non-surgical 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 step-ups).

- -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. open-chain, 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.

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- -Resisted closed-chain rehabilitation through multiple ranges.
- -Running program, balance drills and agility program.