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Physical Therapy Protocol: PCL Reconstruction

Philosophy:

The PCL rehabilitation program emphasizes early restoration of symmetric knee ROM. The goal is to maintain stability, achieve full motion, safely rehabilitate the knee, and avoid harvest site complications. Open chain knee extension exercises, and isokinetic strengthening is **not** performed. As the strength and agility returns, the patient may go back to doing what they enjoy. Even when the formal rehabilitation program comes to an end, keeping the knee strong and stable takes a lifelong commitment. It may take a year or more of steady exercise to regain the full use of the knee.

Phase I, Post-Op 0-3 Weeks

OSMS appointments:

MD visit at 2 weeks with post-op film

Physical therapy will begin as directed by your physician and as indicated on your physical therapy order

Rehabilitation Goals:

Toe-touch weight-bearing in locked brace at 0

Post-op brace is worn for 3 weeks locked in extension while ambulating and sleeping. This will protect the graft during early incorporation as well as the donor site.

Reduce swelling using cryocuff.

Precautions:

No active extension allowed

ROM exercises are performed prone

Range-of-Motion Exercises:

Prone ROM, passive flexion 0-70

Active-assisted extension 70 to 0 degrees

Suggested Therapeutic Exercises:

Toe touch weight-bear as tolerated with two crutches

Patellar mobilization 5-10 minutes a day for 6 months.

Prone hangs to achieve symmetric knee extension

Towel extensions

Isometric quad sets with knee at 0°, 60° of flexion. Three sets of 10, holding for ten seconds, 3 times a day.

Straight leg raises in the locked post-op brace. Three sets of 10, 3 times a day.



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Cardiovascular Exercises:

UE ergometer, core strengthening

Progression Criteria:

Patient may progress to phase II after 3 weeks if they have pain well-controlled

Phase II, (after Phase I criteria met, usually 3-6 weeks)

OSMS appointments:

MD appointment at 6 weeks

Physical therapy appointments remain every 5-7 days

Rehabilitation Goals:

TWB to 75% WB with crutches

Brace remains locked at 0

Precautions:

Remain locked in brace for ambulation and sleeping

OK to progress to 75% WB with crutches

Range-of-Motion Exercises:

Prone ROM, passive flexion 0-90

Active-assisted extension 90 to 0 degrees

Suggested Therapeutic Exercises:

Short crank (90mm) ergometry

0-60 arc leg presses

SLRs (all planes), progressive resistance

Multi-angle quad isometrics, 20-60 degrees

Cardiovascular Exercises:

UE ergometry

Core strengthening

Progression Criteria:

Patient may progress to phase II after 3 weeks if they have pain well-controlled

Progressive quadriceps control

Phase III, (after Phase II criteria met, usually 12-20 weeks)



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OSMS appointments:

MD appointment at 12 weeks

Physical therapy appointments every 5-7 days, and progresses to home program

Rehabilitation Goals:

Discontinuation of crutches when gait is non-antalgic

Dual limb, then single limb control

Precautions:

Once knee ROM reaches 115, ok to advance to standard ergometry

Range-of-Motion Exercises:

AAROM, OK to advance at 12 weeks to quad stretching, proprioception (perturbations)

Suggested Therapeutic Exercises:

Forward step-up program

Leg presses/mini-squats 0-60, then advance at 12 weeks 0-80

OK to advance at 8 weeks to step-down program

OK to advance at 12 weeks to BAPS, Prop board, lunges, Versaclimber, agility (sport cord), retrograde treadmill

Cardiovascular Exercises:

Stairmaster, Aquacisor (gait training), or retrograde treadmill

Progression Criteria:

Patient should be pain-free with minimal swelling

Independent non-antalgic gait

Functional hop test (>85% contralateral)

Patient should demonstrate a satisfactory 8" step descend

Phase IV, (after phase III criteria met, usually 20+ weeks)

Rehabilitation Goals:

Begin a forward running program

Initiate agility drills and cutting activities.

Continue LE strengthening, flexibility, proprioceptive and agility programs

Floor beam (if applicable)

Initiate plyometric program

Advance agility and sport-specific programming

Maintenance exercise program

References:

- Petrigliano FA, McAllister DR. Isolated posterior cruciate ligament injuries of the knee. *Sports Med Arthrosc.* Dec 2006;14(4):206-212.



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- Peccin MS, Almeida GJ, Amaro J, Cohen M, Soares BG, Atallah AN. Interventions for treating posterior cruciate ligament injuries of the knee.
- Shelbourne KD, Jennings RW, Vahey TN. Magnetic resonance imaging of posterior cruciate ligament injuries: assessment of healing. *Am J Knee Surg*. Fall 1999;12(4):209-213.
- Chhabra A, Kline AJ, Harner CD. Singlebundle versus double-bundle posterior cruciate ligament reconstruction: scientific rationale and surgical technique. *Instr Course Lect*. 2006;55:497-507.