OrthoIllinois®

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Posterior Cruciate Ligament Rehabilitation Protocol

**It is important to understand that all time frames are approximate and that progressions should be based on individual monitoring.

General Precautions:

1. **Early activity following PCL repair can lead to increased laxity. The focus of this rehab protocol is on slow progressions of ROM, especially flexion.**
2. **Since the graft is usually tensioned between 70^{o} and 90^{o} of flexion and greater angles of flexion stretch the graft, flexion is limited beyond this range for 2-4 weeks.**
3. **No activation of the hamstring (to minimize posterior tibial shear force and PCL load) until 6-8 weeks after surgery.**
4. **Resisted knee extension may be performed with minimal posterior shear force between 60^{o} and 0^{o}.**

Precautions/concomitant surgeries:

☐ 1. Posterolateral corner instability. Maintain tibial ER during all weight-bearing and non- weight bearing activities in early post-op period
☐ 2. Meniscal Repair: No weight-bearing for 4 weeks
☐ 3. Chondroplasty: Restricted weight-bearing for 4 weeks
No weight-bearing exercises for 4 weeks
☐ 4. MCL Injury: Restrict motion to sagittal plane until week 4-6 to allow healing of MCL
Maintain tibial IR during all PREs in early post-op period to decrease stress on MCL.

Phase I: Post-Operative (wk 1)
Goals:

- Protect graft
- Improve ROM per precautions
- Restore patellar mobility
- Good quadriceps contraction
- Ambulating PWB with crutches with knee brace locked

Phase I Treatment:

- Change dressing at 1st P.T. visit
- NMES
- Quad sets
- SLR
- Patellar mobilizations
- IFC and cryotherapy
- HEP: QS, SLR, patellar mobilizations

Phase II: Maximum Protection (wks 2-4)
Goals:

- Full extension
- Flexion to 60 deg **(week 2)**
- Flexion to 90 deg **(week 4)**
- SLR without extension lag

Phase II Treatment:

- Patellar mobilizations
- Portal/incision mobilization as needed
- SAQ 30^{o}-0^{o}
- Supine knee flexion holding tibia forward
- Prone knee flexion **(therapist assisted). 0-60^{o}**
- Stationary bike for ROM (easy)
- Gait training PWB with crutches

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Phase III: Late Protection Phase (wks 5-10)
Goals:

- Flexion to 110 deg **(wk 6)**
- Normal gait without crutches
- Increase strength of lower extremity
- Retrain balance/proprioception

Phase III Treatment:

- Stationary bike – easy
- Begin closed chain if good quad control: wall sits, wall squats 0-45°.
- SAQ/LAQ 60-0°
- Theraband exercises for hip abduction, adduction, flexion
- Heelraises with weight
- Cardiovascular equipment- elliptical stairmaster/stepper

Phase IV: Functional Rehab (wks 12-15)
Goals:

- Pain free AROM to within 10° of uninvolved
- Progress exercise intensity and duration
- Exercises more sport specific
- Get fitted for a functional brace (if appropriate)

Phase IV Treatment:

- 0-90° hamstring exercises against gravity
- Progress all cardio activity
- Make balance activities more sport specific
- ROM as needed

Phase V: Return to activity (week 16)
Goals:

- Full ROM (compared to opposite side)

Phase V Treatment:

- Initiate running progressions with functional brace (see note)
- PRE hamstring curls 0-90°
- Transfer to fitness facility (if all milestones met)

Phase VI: Return to sport transition
Goals:

- Return to sport at 6-7 months post-op with functional brace for up to 18-24 months from date of surgery

Phase VI Treatment:

- Proprioceptive, dynamic balance, functional activities
- Slow to fast
- Low to high force
- Controlled to uncontrolled

Running progressions:

1. Treadmill walking
2. Treadmill walk/run intervals
3. Treadmill running
4. Track: run straits, walk turns
5. Track: run straits and turns
6. Run on road

Progress to next level of running when patient is able to perform activity for 2 miles without increased pain or effusion. Perform no more frequently than every other day. Do not progress more than 2 levels in a 7 day period

*** Developed and approved by Rolando Izquierdo, M.D. (Updated March 2016)**