

PCL Reconstruction w/out Meniscus Rehabilitation Protocol

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Diagnosis: PCL Reconstruction

PT Frequency: 2-4 times per week

ROM Restrictions: Full ROM

Brace: Locked in extension x 2 weeks, then progress per below

Weightbearing: Toe touch WB x 4 weeks, then progress to WBAT

Weeks 0-4 (Phase I)

- Weight Bearing: TTWB with crutches immediately postop but progress to WBAT (dual crutch use → single crutch use in opposite arm → no crutch use).
- Brace:
 - PCL “Jack” Brace preferred. If unable to acquire, use regular hinged knee brace with a stack of towels behind tibia to provide anterior force to prevent posterior sag.
 - Weeks 0-2: Locked in full extension for sleeping and all WB. Off **only** for hygiene.
 - Weeks 2-4: Unlocked when quadriceps activity returns. Off **only** for hygiene.
- ROM: Full with therapy except as above weeks 0-2. Emphasize extension. Goal of full extension and 60° flexion by 2 weeks
- Exercises: Heel slides, quad sets, patellar mobilization, SLR with brace locked in extension, seated SAQ sets, **avoid isolated hamstring exercises.**

Weeks 4-6 (Phase II):

- Weight Bearing: WBAT
- Brace: Unlocked
- ROM: Full. Goal of 120° flexion by 6 weeks.
- Exercises
 - Motion
 - Progress through passive, active, and resisted ROM
 - Extension board and prone hang with ankle weights (up to 10 lbs), posterior leg stretch (legs up against a wall), seated wall sits (back against wall, legs flat on ground)
 - Stationary bike with no resistance for knee flexion (alter seat height as ROM increases)
 - Encourage frequent ankle ROM
 - Strengthening
 - **Initiate BFR**
 - SAQ sets (seated first, progress to standing), SLRs with knee locked in extension. Standing glut sets
 - **Avoid hamstring resistance exercises.**
 - Closed chain work (mini-squats/weight shifts, gentle leg press 0-90° arc) once full weight bearing. Wall sits. Progress proprioception training

- Initiate Step-Up program
- No restrictions to ankle/hip strengthening
- Modalities
 - PRN (i.e. electrical stimulation, ultrasound, etc) per discretion of therapist.
 - Heat before therapy sessions, Ice after therapy sessions.
 - May participate in aqua therapy when skin is fully healed

Weeks 6-12 (Phase III):

- Weight Bearing: Full
- Brace: Discontinue
- ROM: Full, caution with flexion >90° to protect meniscus
- Exercises
 - Progress Phase II exercises
 - Isotonic Knee extension (90 to 40 degrees, closed chain preferred).
 - Add lunges, side lunges, leg press and/or slideboard.
 - Initiate Step-Down program.
 - Versaclimber/Nordic Track, retrograde treadmill ambulation, Stairmaster.
 - Add core strengthening exercises.
 - Progress balance/proprioception.
 - Continue stationary bike for ROM, strengthening and cardio.
 - Continue modalities PRN as indicated above.

Weeks 12-18 (Phase IV):

- Exercises
 - Progress Phase III exercises and functional activities (single leg balance, core, glutes, and eccentric hamstrings).
 - Advance strengthening as tolerated, continue closed chain exercises. Increase resistance on equipment.
 - Begin forward treadmill running program when 8" step down is satisfactory (No sooner than 12, preferably 16 weeks).
 - Begin plyometrics and increase as tolerated.

Weeks 18-24 (Phase V):

- Exercises
 - -Progress Phase IV
 - -Initiate sport-specific agility drills and functional testing
 - -Advance plyometric program starting at 22 weeks
 - -Advance agility program at 22 weeks (Z cuts, backward to forward running, footwork drills, double leg power jumps, alternate single leg jump rope)
 - -FSA completed after 22 weeks

>6 months (Phase V+)

- Gradual return to sports participation after completion of FSA and clearance by MD