

PCL Reconstruction

****DISCLAIMER:** Total length of rehab will vary depending upon the following factors: severity or acuteness of injury, age, health, or personal goals of the patient.

PRECAUTIONS: *Avoid isolated open chain hamstring activities for first 10 weeks. Limit all posterior tibial shear forces during ROM and PREs to protect graft.*

Phase I: 0-2 weeks.

Goals for Phase I:

1. 0°-110° AROM (14 days)
 2. Weight bearing as tolerated with crutches
 3. Voluntary Quadriceps control
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- A. Orthotics: Patient is placed in IROM brace to be worn unlocked with 0°-90° of ROM during the day and locked in full extension at night (until patient has full active extension.) TED hose to be worn on effected leg. Polar care unit used frequently throughout the day
 - B. Gait training: Patient should be instructed in proper crutch use WBAT.
 - C. ROM: Work to restore normal knee A/PROM 0°-90° out of brace
 - D. Strengthening: Begin with isometrics-quad, add sets; progressing to straight leg raises, short and long arc quads, progressive resistive exercises: theraband, tubing, cuff weights, closed chain exercises
 - E. Flexibility: Calf, quadriceps, and hamstring stretching
 - F. Balance/proprioception: Standing on one leg-eyes open/closed, BAPS board sitting-standing etc.
 - G. Soft tissue management: Wound monitoring (avoid getting stitches wet), swelling control, scar massage, patellar mobilizations.
 - H. Modalities: Use for pain, inflammation, swelling control, and muscle re-education as needed

Phase II: 2 – 4 weeks

Goals for Phase II:

1. 0°-130° AROM
 2. Good quad muscle tone
 3. Full weight-bearing without limp
 4. Progression from bilateral to unilateral activity
 5. Fit for custom PCL brace
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- A. Orthotics: Continue with IROM opened from 0°- 90°
 - B. ROM: Begin using stationary bike, progress ROM as tolerated (0°-130°)
 - C. Strengthening: Progress to leg presses, stair climber, step-ups, wall squats, standing terminal knee extensions (TKE), heel-toe walk.
 - D. Flexibility: Continue as needed
 - E. Balance: Continue as needed
 - F. Modalities: Continue as needed.

Phase III: 4 – 6 weeks

Goals for Phase III:

1. Tolerate light recreational activity
 2. Return to work activity
 3. ROM = to uninvolved side
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- A. Orthotics: Custom PCL brace should be fitted by week 4
 - B. ROM: Continue as needed
 - C. Strengthening: Progress to 1-leg squats, 1-leg calf raises, step downs, biodex eccentric/concentric quads
 - D. Flexibility: Can begin stretching IT band if needed. Continue with quad/HS/calf stretches

- E. Balance: Continue emphasizing unilateral activity; BAPS board, wobble board etc.
- F. Functional activities: ADLs with functional brace

Phase IV: 6 – 8 weeks

Goals for Phase IV:

1. Full knee ROM
 2. Out of brace for conditioning/walking
- A. ROM: Full ROM
 - B. Strengthening: squats, sport Cord Exercises (with brace), Limit PREs 0-90 degrees.
 - C. Functional activities: Outside biking with brace

Phase V: 8 – 12 weeks

Goals for Phase V:

1. Perform 3 month Biodex test –
 2. Begin jogging program-straight line (if 70% quad strength)
- A. Strengthening: Isokinetic strengthening 0° - 60°; initiate hamstring curls, low weight
 - B. Perform KT 1000
 - C. Functional activities: Begin flutter kicks/running in deep water (12 wks)

Phase VI: 12-24 weeks

Goals for Phase VI:

1. Biodex Test 90°-0° at 6 months-80% strength
 2. Begin weight room strengthening activities-with Brace
- A. Strengthening: Begin weight-room strengthening exercises per therapist's orders. Emphasizing low weight, high repetition. Full ROM isokinetics
 - B. Functional activities: begin agility drills, plyometrics

Phase VII: 6-12 months

Goals for Phase VII:

1. Return to functional activities: 6 months- Baseball, Basketball, Volleyball
12 months- Football, Water Skiing, Snow Skiing
- A. Continue strengthening/conditioning/functional activities as needed