



## Non-operative Treatment of Posterior Cruciate Ligament (PCL) Sprains

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- Phase I – Protection Phase (Week 0-2)
  - Goals
    - Re-establish non-painful ROM
    - Decrease pain and inflammation
    - Prevent muscular inhibition
    - Promote healing of PCL
  - Cryotherapy for pain/inflammation
    - Ice 15-20 minutes every hour
  - Brace
    - Hinged brace
    - Locked in extension for ambulation until good quadriceps control
    - Brace at 0-60 unlocked when sedentary
  - ROM
    - 0-60 degrees
    - Non-painful ROM only
  - Isometrics (multi-angle)
  - Knee extensions (60-0 degrees only)
  - Mini-squats/leg press (0-45 degrees only)
  - Precautions
    - No heavy lifting
    - No jerky movements
- Phase II – Moderate Protection Phase (Week 2-3)
  - Goals
    - Regain and improve muscular strength
    - Improve kinematics
    - Gradually restore full PROM
    - Decrease pain and inflammation
  - Continue use of ice as needed
  - May use heat prior to ROM exercises
  - Progress above exercises as ROM improves

- Brace
    - 0-90 degrees
  - Use of modalities as needed
  - Initiate isotonic exercises
  - Bicycle for ROM
  - Pool program
  - Mini-squats/leg press (0-60 degrees)
  - Lateral step-ups
  - Single leg squats
- Phase III – Strengthening Phase (Week 3-6)
    - Goals
      - Improve strength/power/endurance
      - Improve neuromuscular control
      - Gradual return to functional activities
    - Criteria to progress to Phase III
      - Minimal pain/tenderness
      - ROM at least 0-90 degrees
    - Transition to functional brace at 6 weeks in some cases  
    - Continue above exercises
    - Squats/leg press (0-90 degrees)
    - Progress strengthening exercises
    - Hamstring curls (light resistance)
    - Hip abduction/adduction
- Phase IV – Return to Activity Phase
    - Goals
      - Progressively increase activities to prepare for full functional return
    - Criteria to return to sports
      - Full non-painful ROM
      - No pain/tenderness
      - Satisfactory clinical exam
      - No change in laxity
    - Continue plyometrics
    - Gradual return to sports activities