

PCL post operative treatment protocol

Time following injury	Goal	Precaution	Treatment	Weight bearing/ROM/brace
Phase 1 (0 to 6 weeks)	<p>PCL protection Oedema reduction to improve passive ROM and Quadriceps activation</p> <p>Address gait mechanics</p> <p>Patient education</p>	<p>Protect, Rest, Ice, Compress, Elevate</p> <p>Avoid isolated hamstring exercise until week 12</p> <p>Avoid hyperextension</p> <p>Prevent posterior translation</p>	<p>Patellar Mobilisation</p> <p>Prone passive ROM (Fig 1)</p> <p>Quadriceps activation: Quadriceps sets; SLR once the quadriceps are able to lock joint in terminal extension and no lag is present</p> <p>Gastronemius stretching Hip abduction/adduction Upper body and core strength as appropriate</p>	<p>non weight bearing with crutches 6 weeks Prone passive ROM from 0 to 90 (Fig 1) for first 2 weeks and then progress to full ROM Brace.</p> <p>Cricket pad splint for 3 days till ready for PCL brace</p> <p>PCL brace to be worn at all time for 24 weeks</p>
Phase 2 (6 to 12 weeks)	<p>PCL ligament protection Full ROM as tolerated Gait mechanics during crutch weaning</p> <p>Address gait mechanics during crutch weaning</p> <p>Double leg strength through ROM (no greater than 70 degree) and single leg static strength exercises</p> <p>Reps ans set structure to emphasize muscular endurance development</p>	<p>Continue avoidance of hyperextension and isolated hamstring activation</p> <p>Prevent posterior translation</p> <p>Single leg dead lift with knee extended (Fig 5) Proprioceptive and balance exercises</p>	<p>Continue PRICE protocol Continue excercises as week 1-4</p> <p>Gastronemius and light Hamsting stretching Weight shifts to prepare for crutch weaning Pool walking to assist with crutch weaning</p> <p>Progressive suatting (squat-squat with calf raise-squat with weight lift Light kicking in pool</p> <p>Incline treadmill walking (7-12% incline)</p> <p>Double leg press (0 to 70 degree)</p>	<p>Wt bearing as tolerated Full ROM supine and prone</p> <p>PCL brace at all times</p>
Phase 3 (13 to 18 weeks)	<p>Joint protection</p> <p>Address gait mechanics Progressive weight bearing strength, including progressive hamstring strengthening</p>	<p>Avoid isolated weight hamstring exercise until 16 weeks</p> <p>Can progress leg press and knee bends past 70 degree flexion after 16 weeks</p>	<p>Double leg press with progression to single leg (Fig 2) Balance squats (Fig 6)</p> <p>Progress stationary bike resistance and duration Squat progression Single leg bridges starting during week 16</p>	<p>Remain in PCL brace for all activities Full wt bearing in PCL brace</p> <p>Full passive ROM</p>
Phase 4 (19 to 24 weeks)	<p>Strength building and single leg endurance for all lower extremity musculature with increased emphasis to developing power</p>	<p>PCL brace Clinical examination and stress radiograph to objectively verify healing of PCL after 24 weeks</p>	<p>Continue OKC and CKC strength and endurance work with progressive weight</p> <p>Iniciate spot specific drill at the end of this phase</p>	<p>Non contact sports Contact sports when: greater than 85%-90% normal quads strength; No evidence of instability or give way; Greater than 90% functiona on return to sports testing; Mentally prepared Athlete</p>
Phase 5 (25 to 36 week)	<p>Patient education and return to activity progression</p> <p>Weaning of Brace</p>		<p>Initiate absorbtion activity Continue strength and endurance excercises and OKC for quadriceps and Hamstrings Staight line jogging progression</p>	<p>Jogging: wk1: 4min walk; 1min jog (for 20 min) wk2: 3min walk; 2 min jog (for 20 min) wk3: 2min walk; 3 min jog (for 20 min) wk4: 1 min walk; 4 min jog (for 20 min)</p>