



**PCL RECONSTRUCTION TREATMENT GUIDELINES**

**Last Updated: Oct 2012**

<b>PHASE</b>	<b>Goal</b>	<b>EXERCISE/METHODS</b>
<b>Phase 1 Preoperative</b>	Decrease swelling	Cryo/Cuff with elevation (10-15 min)
	Restore full terminal knee extension and flexion	Extension: prone hangs or heel props (7-10/min) Flexion: heel slides, active assist flexion
	Normalize gait	Weight bearing as tolerated Treadmill: forward/backward (5-10 min)
	Normalize strength	Closed chain: leg press, total gym (10-50 deg), toe raises Open chain: Quad machine (90-30 deg), hamstring machine 4-way SLR. All exercises 3-5 sets, 12-15 reps Electrical stimulation for VMO PRN
	Maintain aerobic fitness	Low-impact activities (bike, treadmill walking)
	Home program	Ice/elevation: 20 min on/60 min off Passive extension/flexion activities Lower extremity strengthening as indicated All activities 3-4 times/day or as indicated
<b>Phase 2 Postoperative Days 1-7</b>	Control swelling	Ace wrap with elevation-ankle pumps (20 min)
	Ensure soft tissue healing (wound care)	Monitor wound site for severe redness and drainage
	Passive ROM -- Obtain full passive extension of knee	Hands on stretching. Towel stretch (towel around foot –knee straight)
	Normalize gait	Weight bearing as tolerated in locked brace
<b>Phase 3 Postoperative Days 8-20</b>	Increase strength	SLR, Hip ABD/ADD, quad sets
	Home program	As above 4-5 times/day
	Control swelling	Ace wrap with elevation-ankle pumps (20 min)
<b>Phase 3 Postoperative Days 8-20</b>	Restore full terminal knee extension and flexion to 70 deg	Extension: Quad Sets for home. Hands on PRN Passive Flexion: heel slides with belt or towel
	Normalize gait	Weight bearing as tolerated

		Treadmill: forward (5-10 min) Calf, hamstring, hip flexor stretching (3 times, 30 sec hold) *emphasize heel to toe gait*
	Increase strength	SLR, Hip ABD/ADD,quad sets, Electrical muscle stimulation PRN (15 min)
	Home program	Ice/elevation: 20 min on/60 min off Extension/flexion activities as instructed. Lower extremity strengthening as indicated All activities 3-4 times/day or as indicated *avoid prolonged lying with pillow under knee*
<b>Phase 4 Postoperative Weeks 3</b>	Control swelling	Ice PRN. Ace wrap PRN.
	Full passive knee extension and flexion (0-125 by 4 wks)	Extension: Hands on (PRN) Flexion: heel slides, active assist flexion, and chair stretch
	Normal ambulation	Treadmill: forward/backward (5-10 min) Increase grade with treadmill as tolerated Calf, hamstring, hip flexor stretching (3 times 30 sec hold)
	Pain-free strengthening	Continue all previous exercises
<b>Phase 5 Postoperative Weeks 4-5</b>	Improve Strength	Total gym (30-40 deg) , leg press (30-40deg), single - leg toe raises, step ups, 4-way SLR with tubing (steamboats), rebounder, Hip Extension – prone. Mini squats, single-leg toe raise, wall sit. All exercises 3-5 sets, 12-15 reps
	Aerobic Fitness	Cycling, swimming, stairmaster
<b>Phase 6</b>	Brace Fitting	You will be fit with a functional PCL brace (can remove while sleeping).
	Driving	If FWB and can perform all previous phases CKC exercises, then patient can drive a car.
	Strength	Continue previous exercises/rehab program
<b>Phase 7 Postoperative Weeks 7-15</b>	Criteria for progression to Phase 7	No effusion Painless full ROM Minimal crepitus

Improve strength

Closed chain: leg press (10-50 deg),  
toe raises. Total gym level 8-10 without  
pain. Trampoline – hopping/jogging,  
Treadmill – lateral walking, lunges -  
clockface, bodyblade (single-leg with BB  
in opposing hand). Open chain: Quad  
machine (90-30 deg),  
All exercises: 3 sets 15-20 each

**Phase 8  
Postoperative  
Weeks 16**

Implement running program if indicated

Walk/jog cycles (in straight line)  
3-5 min warm-up (walk)  
\*10-30 sec jog/60 sec walk for 10-20 min  
3-5 min cool-down (walk)  
\*increase jog time and decrease walk time  
based upon patient response.

**Phase 9  
Postoperative  
Weeks 17-23**

Improve strength

Open chain: Hamstring machine,  
3 sets 15-20 each. Skiers Edge, Lateral  
shuffles/braiding

**Phase 10  
Postoperative  
Weeks 24**

Implement sport specific activity

\*Progression program of strength training  
And agility/speed drills ie., jumping rope  
\*Program should be based upon specific  
patient needs. Biodex Test.

Discharge Criteria  
(Return to Sports)

Score great than 90 on Lysholm with no  
locking or instability.  
Ratio of 80% involved to uninvolved on  
isokinetic test at 6 months post-op.  
Ratio of 80% on one-legged jump.



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