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PCL Injury Non-Surgical Rehabilitation Protocol

Phase / Goals	Immobilization	ROM	Therapeutic Exercises
Phase 1 (0-2 weeks) Goals: <ul style="list-style-type: none"> • ROM 0-90° • Protect posterior tib sag • No quad lag 	<ul style="list-style-type: none"> • PCL brace at all times including sleep • 20lb flat foot weight bearing in brace x 2 weeks 	<ul style="list-style-type: none"> • PROM 0-90° – all ROM exercises performed prone or side lying x 2 weeks • Modalities PRN 	<ul style="list-style-type: none"> • Home stretching 2-3x daily • Flexion/extension seated/calf assisted • Quad sets, SLR • Ankle pumps • No hamstring isometrics x6 weeks
Phase 2 (3-4 weeks) Goals: <ul style="list-style-type: none"> • Control effusion • Full PROM • Full weight bearing 	<ul style="list-style-type: none"> • PCL brace at all times including sleep • Advance to full weight bearing 	<ul style="list-style-type: none"> • Full PROM, begin AAROM <ul style="list-style-type: none"> ◦ Avoid hyperextension x 12 weeks • Modalities PRN <ul style="list-style-type: none"> ◦ Begin BFR 	<ul style="list-style-type: none"> • Closed chain strengthening 0-45° • Quad sets/SLR in Brace at 0° (assist patient with this exercise until solid quad contraction developed, prevent posterior sag) 3x10 3x's/daily, may use ankle weights as they will increase anterior translation • Begin stationary bike w/ no resistance once ROM 0-120° • Can begin pool therapy, but NO kicking
Phase 3 (5-6 weeks) Goals: <ul style="list-style-type: none"> • FWB • Full ROM • 4+/5 quad strength 	<ul style="list-style-type: none"> • FWB • PCL brace at all times including sleep 	<ul style="list-style-type: none"> • Progress to full A/PROM <ul style="list-style-type: none"> ◦ Avoid hyperextension x 12 weeks • Patellar mobilization • Modalities PRN 	<ul style="list-style-type: none"> • ¼ squats, leg press 0-60° light weight • Gentle sit and reach for hamstrings (no hypertext) • Start proprioception training in brace • Stationary bike with minimal resistance • Single leg stance

Phase 4 (7-8 weeks) Goals: <ul style="list-style-type: none"> FWB 	<ul style="list-style-type: none"> FWB PCL Brace full time 	<ul style="list-style-type: none"> Full A/PROM <ul style="list-style-type: none"> Avoid hyperextension x 12 weeks Patellar mobilization 	<ul style="list-style-type: none"> Light RDL/sliders Leg press 0-90° light weight Squat progression Stationary bike advance resistance Progress from bilat leg press to unilateral w/ light weight
Phase 5 (9-12 weeks) Goals: <ul style="list-style-type: none"> 5/5 strength Normal gait Good single leg stance 	<ul style="list-style-type: none"> FWB PCL Brace full-time 	<ul style="list-style-type: none"> Full A/PROM <ul style="list-style-type: none"> Avoid hyperextension x 12 weeks 	<ul style="list-style-type: none"> Start plyometric/jump training Start long lever hamstring exercises and strengthening Isokinetic test for Quad strength difference \leq 10% and unilateral Hamstring/Quad strength ratio of 65% or better Initiate early return to play exercises Return to running when sufficient strength and stability (>90% quad strength and girth)
Phase 6 (13-16 weeks) Goals: <ul style="list-style-type: none"> Return to sport 	<ul style="list-style-type: none"> FWB PCL brace during training or sport 	<ul style="list-style-type: none"> Full A/PROM 	<ul style="list-style-type: none"> Start resisted dominant hamstring Advance return to play exercises and drills Avoid deep loaded CKC flexion until 16 weeks Continue strength testing monthly until patient passes then perform functional testing Dr. Ridley to discuss prior to return to sport
Phase 7 (17-28 weeks) Goals: <ul style="list-style-type: none"> Full game play without instability or swelling 	<ul style="list-style-type: none"> FWB PCL brace optional 	<ul style="list-style-type: none"> Full A/PROM 	<ul style="list-style-type: none"> Continue strength and plyometric training Advance game time and endurance

RETURN-TO-SPORT CRITERIA:

Full return to all sports and games

- Atleast 3 months from injury
- No functional complaints, full range of motion & no effusion
- Confidence when running, cutting, jumping at full speed

- >90% isometric quadriceps strength
- >90% contralateral values on hop tests
- >90% Quad Index LSI with Biodex or HHD
- >90% Quad peak torque/body weight on Biodex (if applicable)
- Excellent ACL-RSI