

PROTOCOL

MPFL RECONSTRUCTION

	Approximate Time Frame (Weeks)	Activity	Goals
PHASE I	0-2	WB Status: PWB 50% x2-4 weeks Brace: Locked 0/0 knee extension for 6 weeks ROM: No knee ROM x2 weeks* Manual: patella mobilization superior and inferior, gentle STM to reduce edema, soreness, stiffness above/below knee PRN Exercise: <ul style="list-style-type: none"> • Quad sets (w/NMES PRN) • Gait training 	<ul style="list-style-type: none"> ◇ Control inflammation ◇ Minimize DVT risk ◇ Full knee extension ◇ Normalize superior/inferior PF mobility ◇ Normalize gait with crutches
	2-4	WB Status: PWB—FWB (wean off crutches) ROM: 30° knee flexion, progress 30°/week * Exercise Progression: <ul style="list-style-type: none"> • Heel slides for ROM • SLR series, calf raises 	<ul style="list-style-type: none"> ◇ Control inflammation ◇ Full knee extension/hyperextension ◇ Progress off crutches
	4-6	WB Status: FWB Brace: Locked 0/0 knee extension until week 6 ROM: 30° knee flexion/week, 90° by week 6* Manual: patella mobilization superior and inferior, gentle STM to reduce edema, soreness, stiffness above/below knee PRN Exercise Progression: <ul style="list-style-type: none"> • Quad sets • SLR • Multi-plane OKC strengthening • Bridge on SB with knee ext • LE stretching (hamstring, calf, ITB) • Calf raises 	<ul style="list-style-type: none"> ◇ 90° knee flexion by week 6 ◇ Full knee extension/hyperextension ◇ Minimal effusion
PHASE II	6-8	Brace: Continue 0/0 until week 6—progress out over 2 weeks ROM: 0-120° - progress as tolerated Exercise progression: <ul style="list-style-type: none"> • Multiplane OKC and CKC hip strengthening • Proprioception drills • Step up progression, 0-30 squat Cardiovascular: <ul style="list-style-type: none"> • Stationary bike/outdoor walking • Deep water pool (when incisions healed) 	<ul style="list-style-type: none"> ◇ Progress out of brace ◇ Normalize gait ◇ Minimize swelling, PF pain ◇ Full knee extension ◇ Knee flexion >120° ◇ Muscular endurance progressing into strength
	8-10	ROM: Full ROM Exercise Progression: <ul style="list-style-type: none"> • CKC squat progression/leg press progression Cardiovascular: <ul style="list-style-type: none"> • Progress intensity of stationary bike • Add elevation to treadmill walking and elliptical • Advance intensity of deep water pool program—endurance training 	<ul style="list-style-type: none"> ◇ Reduce inflammation ◇ Full ROM ◇ Normalize PFJ and scar mobility

*Defer to physician orders on ROM if different

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PHASE III	10-12	Manual: PRN to address ROM deficits/PF pain. Mobilize scars Exercise progression: <ul style="list-style-type: none"> Squat progression—progress as tolerated with focus on swelling and pain Increase LE flexibility Controlled movement series 	<ul style="list-style-type: none"> ◇ Full knee flexion and extension with terminal stretch ◇ Increase muscular endurance
	12-16	Exercise progression: <ul style="list-style-type: none"> Conservative Gym Program (avoid leg extension 30-0 and lunges due to stress on PFJ) Lateral lunge progression—week 12-16 Maximize proprioception and stability Cardiovascular: <ul style="list-style-type: none"> Outdoor biking—week 12 Swimming freestyle—week 12 Shallow water pool running/Alter G running—week 12 Backward elevated treadmill walking—week 16 	<ul style="list-style-type: none"> ◇ Progressive strengthening ◇ Control swelling with increasing loads <i>To begin jogging progression:</i> <ul style="list-style-type: none"> ◇ 75% LSI of quad strength ◇ Single leg squat x 90 sec > 75% LSI
PHASE IV	16-20	Exercise progression: <ul style="list-style-type: none"> Progress resistance with squat program Linear running progression Ladder series Basic Plyometric box progression 	<ul style="list-style-type: none"> ◇ Fit functional brace ◇ Increase muscular strength, endurance and power ◇ Minimal PF pain with progression ◇ Establish RTA
	20-24	Return to Sport and Functional Drills: <ul style="list-style-type: none"> Interval Golf program Advance ladder, hurdle and plyometric box progressions Sport specific field/court drills with brace on Non-contact drills RTS test for competition at 6+ months	<ul style="list-style-type: none"> ◇ Reconditioning for sport demands ◇ Correct faulty movement with high level tasks ◇ Emphasize both limbs for injury prevention ◇ RTS test at 6 months ◇ Quad strength >90% LSI