

MLKI Reconstruction Rehab Protocol



Physical Therapy Prescription

Please fax progress notes to Advanced Orthopedics & Sports Medicine at 720-895-1121

Name:	Date of Surgery:
Diagnosis : R / L Multiligamentous Knee Recon	struction (ACL / PCL / MCL / LCL / PLC)
Frequency: 2-3 times per week for w	eeks, Therapy to start 3-5 days after surgery
Phase I: Protection & Early Passive ROM/Pre Brace: Hinged knee brace locked in extension when the state of th	vention of Stiffness (0-2 Weeks) hen ambulating, 0-90 degrees for ROM; worn 24 hours per day
including sleep	
WBS: Flat foot feather touch weight bearing with	
ROM: Prone or supine assisted knee flexion 0-90	
* * * * * * * * * * * * * * * * * * * *	ilization – medial/lateral and inferior/superior glides
	NGS/KNEE FLEXION X 6 WEEKS, Isometric Quad
	g), isometric hip adduction/abduction, ankle pumping
Modalities: Ice, compression and analgesics as n	eeded to reduce pain and swelling
Phase II: ROM & Muscle Activation (2-6 Wee	ks)
	hen ambulating, 0-90 degrees for ROM, OK to remove while
sleeping	,
WBS: Flat foot partial weight bearing with crutch	nes
	degrees with proximal tibia protected against gravity, Patella
<u>-</u>	NGS/KNEE FLEXION X 6 WEEKS, Isometric Quad
contractions (+/- muscle stimulation), Gluteal ac	tivation (supine or standing), isometric hip
adduction/abduction, ankle pumping, Progress to	o mini squats, 0-30 degrees with brace on (can weight bear as
tolerated during this exercise), Non-weight bearing	ng hip stability exercises: abduction, extension, external
rotation, clam shells, supine bridging on swiss ba	ll, Ankle theraband plantar flexion, sitting calf raises
Modalities: Ice, compression and analgesics as n	eeded to reduce pain and swelling
Phase III: ROM and Strengthening (6-12 Wee	ks)
	ted until normal heal toe gait, Hinged knee brace worn when
ambulatory, OK to be unlocked for ambulation	9444 110211101 11042 100 84114, 22111800 211100 021100 11011
ROM: Full range of motion, Patella mobilization	— medial/lateral and inferior/superior glides
	IAMSTRINGS/KNEE FLEXION IN HINGED KNEE
	n long sitting, standing (+/- muscle stimulation), Leg
	e extension with theraband, Initiate abdominal and core
strengthening (i.e. curl-ups, transversus abdomini	
	atch for excessive trunk shift/sway), Shuttle/leg press: 2 leg

 Signature:
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squat/calf raises, progress 2-1 leg; increase ROM & resistance, Mini wall squats (30-60°) 60°-90°; sit to stand,

Calf raises 2:1 foot, up on toes walking (when full weight bearing)



Modalities: Ice, compression and analgesics as needed to reduce pain and swelling **Phase IV:** Advanced Strengthening and Return to Light Work (3-6 months)

Brace: May start to wean from brace when normal gait for everyday use, weight bear as tolerated

ROM: Full range of motion

Exercise Suggestions: Bike pendulums: ½ circles forward/backward full circles – lower seat as tolerated, Supine bridging: 2:1 leg swiss ball bridge + knee flexion, Hamstring curls: prone, sitting progress 1-2 lb weights, Continue core strengthening functionally (i.e. obliques, planks, Pilates), Sit to stand lower bed height (watch mechanics) single leg, Progress resistance of Shuttle working on strength & endurance, 2:1 leg, Continue hip strengthening: weights, pulleys, tubing, Static Lunge dynamic lunge (with proper alignment: shoulders over knees over toes), lunge walking as pain free range tolerates, Progress to Low resistance stationary bike, Wobble boards with support: side-to-side, forward/backward, Single leg stance 30-60 seconds (when full WB), May begin jogging / running program once regained full range of motion with a quiet knee and appropriate neuromuscular control

Phase V: Advanced Strengthening and Return to Activities (6+ months)

Brace and Weight Bearing: Brace use as tolerated,

Exercise Suggestions: Progress leg extensions with weight as tolerated (pain free arc), Bungee cord walking: forward, backward, side step, lunging add speed/direction change as tolerated, Forward and lateral step-ups 2-4-6" and eccentric lateral step down on 2-4-6" step with control (watch for hip hike or excessive ankle dorsiflexion), Squats, Lunges on Dynadisc, Airex, Bosu... as range tolerates, Tubing kickbacks (mule kicks), Pro-Fitter: hip abduction and extension\(\rightarrow \text{progress side-to-side}, \text{Shuttle -> standing kick backs (hip/knee)} \) extension), Supine swiss ball bridge + knee flexion single leg, Chair walking/stool pulls, Hamstring curls: standing & sitting-weights/pulleys/ Bungee, Eccentric heel drops off step or Shuttle 2:1 leg, Continue wobble boards and add basic upper body skills (i.e. throwing, catching), Single leg stance on unstable surface (i.e. pillow, mini-tramp, BOSU, Airex, Dynadisc), Single leg stance performing upper body patterning specific to patient goal(s), Standing 747s: eyes open/closed progress to mini trampoline, May begin jogging / running program as tolerated, Agility: Cariocas/grapevine, Figure 8's around cones, ladder drills, lateral shuffle cone:cone, Side to side steps, jumps on the BOSU, Line jumping, backward/forward/side-to-side, progress to diagonals / combined patterns; 2:1 leg Jumping: tuck jumps, box jumps, long jumps, Skipping rope double and single leg, Hopping: single-leg (distance), 6m timed, triple hop (distance), cross-over: 2:1 leg, May implement sport-specific multi-directional drills/contact when adequate core/lower extremity patterning (stop and go drills, sideways and backwards drills, sprinting with cutting and pivoting)

 $Modified\ from: \underline{https://www.fowlerkennedy.com/wp-content/uploads/2017/02/Multiligament-Knee-Injury_Dr-Getgood.pdf}$

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