

Microfracture or BioCartilage Rehabilitation Protocol

	Weight-bearing	Brace	Range of Motion	Exercises
Phase 1 0-6 weeks	Heel touch only	0-2 weeks: Locked in full extension at all times Off for hygiene and home exercise only Discontinue after 2 weeks	Non weight bearing goal 0- 90° @ first post-op visit Gentle passive with progression to full flexion	Calf pumps, patellar mobilization, quadriceps tightening sets and SLR in brace 2-6 weeks: Add side-lying hip and core, advance quadriceps and hamstring sets
Phase 2 6-8 weeks	Wean off crutches and progress to full with normalized gait pattern	Discontinue brace at 6 weeks once normal gait achieved	Full	Advance core work with hip, gluteal and core strengthening
Phase 3 8-12 weeks	Full	None	Full	Gait normalization with closed chain activities: wall sits, shuttle, mini-squats, toe raises. Advance core work with hip, gluteal and core strengthening Begin unilateral stance activities and balance training
Phase 4 3-6 months	Full	None	Full	Progress Phase III exercises and functional activities: walking lunges, planks, bridges, Swiss ball, half-Bosu exercises Advance core work with hip, gluteal and core strengthening May advance to bike, elliptical, pool as tolerated.
Phase 5 6-12 months	Full	None	Full	Advance non-impact activity. No running, jumping, pivoting, or sports participation unless cleared by MD (after 8 months)

SLR – Straight-leg raise;