MACI, AUTOCART, MICROFRACTURE, or BIOCARTILAGE** TO FEMORAL CONDYLE REHABILITATION PROTOCOL

	WEIGHT BEARING	BRACE	ROM	EXERCISES
PHASE I 0-8 weeks	**0-6 weeks:** Heel touch only **6-8 weeks:** Advance 25% weekly until full	**0-2 weeks:** Locked in full extension at all times* Off for CPM, hygiene, and exercise use only Discontinue after 2 wks	Advance as tolerated **0-6 wks:** use CPM 6 hours/day, advance 5-10 degrees/day as tolerated, d/c at 6wks*** Goals: 0-2 wks: 0-30 2-4 wks: 0-60 4-6 wks: 0-90	**0-2 weeks:** Quad sets, SLR, calf pumps, passive leg hangs to 90° at home **2-6 weeks:** PROM/AAROM to tolerance, patella and tibiofibular joint mobs, quad, hamstring, and glute sets, side-lying hip and core **6-8 weeks:** Addition of heel raises, closed chain exercises, gait normalization, eccentric quads, eccentric hamstrings; advance core, glutes and pelvic stability
PHASE II 8-12 weeks	Full	None	Full	Progress closed chain activities and gait training Begin unilateral stance activities, balance training, hamstring work, hip/core/glutes Begin stationary bike at 10 wks with low resistance as tolerated
PHASE III 12 weeks – 6 months	Full	None	Full	Advance Phase II exercises; maximize core/glutes, pelvic stability work, eccentric hamstrings, balance Swimming as tolerated after 12 weeks Elliptical as tolerated after 16 weeks****
PHASE IV 6-12 months	Full	None	Full	Advance functional activity without impact Return to sport-specific activity and impact when cleared by MD after 6-8 months

*Patient may have soft immobilizer, hinged brace, or no brace

**Please follow the PT script if it is different from this protocol. Alignment correction procedures (HTO, DFO, TTO) do not change protocol

***If CPM is not prescribed, goal is 600-800 reps of gentle ROM each day

****Microfracture patients can advance back to sport as tolerated after 16 weeks

BRIAN J. COLE, MD, MBA
MIDWEST ORTHOPAEDICS AT RUSH
BrianColeMD.com

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