

Rehabilitation Protocol:

Autologous Chondrocyte Implantation (Femoral Condyle)

	Weight Bearing	Brace Use	Range of Motion	Therapeutic Elements
PHASE I 0 - 2 weeks	Non-weight bearing (NWB) with crutches.	Locked in extension. Remove for CPM and exercises.	CPM: 6-8 hours per day. Start -5 to 45°. Increase 5-10° per day as tolerated.	Quad sets, SLR, hamstring isometrics, ankle pumps. Regain full extension.
2 - 4 weeks	Touch-down (TDWB) with crutches.	Brace progressively opened as quad control returns.	Goal: at least 90° by 4wks, 120° by 6 weeks.	Begin progressive closed chain exercise.
4 - 6 weeks	50% WB x 1 week, then advance to FWB as tolerated, then wean crutches.	Discontinue brace if patient has controlled SLR without extension lag.		
6 - 12 weeks	As tolerated (WBAT), wean off crutches.	None.	Full A/PROM.	Progress closed chain exercises. Bicycle.
PHASE II 12 weeks - 6 months	Full weight (FWB) with normal gait.	None.	Full A/PROM.	Advance closed chain exercise. Balance exercises. Begin open chain strengthening.
PHASE III 6 - 12 months	FWB.	None.	Full.	Swimming and Treadmill walking for exercise. Progress to Elliptical (EFX).
PHASE IV 12 - 18 months	FWB.	None.	Full.	Continue strength training. May begin a progressive running and agility program. Consider return to high impact sports.