



MACI/ACI to Patella with TTO (Auto/Allograft) Rehabilitation Protocol

****NO SLR, LAQ, OR KNEE EXTENSION FOR ALL PHASES**

	Weight Bearing	Brace	Range of Motion	Therapeutic Exercises
Phase I 0 - 4 weeks	NWB	Ambulation: Crutches and extension locked immobilizer Sleeping: Extension locked immobilizer	CPM: 6-8 hr/day, 2hr increments, 1 cycle/min Week 0-2: -5 to 30° Week 3-4: -5 to 60° Increase ROM 15°/week	Heel slides to protocol Quad/HS/glute sets, NMES to quad Ankle pumps, 4-way ankle Long sitting hamstring and calf stretching Standing hip extension, abduction and adduction SLR
Phase II 4 - 8 weeks	Weeks 4-6: TTWB Week 7: 50% Week 8: FWB/WBAT	Crutches and immobilizer brace for ambulation Discontinue immobilizer: WBAT, full extension, 10 SLR without significant extension lag	Progress ROM as tolerated	Recumbent bike TKE and heel raise with regard to WB Seated theraband HS curls
Phase III 8 - 12 weeks	WBAT		Full, pain free ROM	LE machines (leg press, HS curl, multi-hip), resisted walkout STS, 2-4" step-up, begin balance exercises Limit unilateral CKC activity
Phase IV 12 - 24 weeks	WBAT		Full, pain free ROM	Eccentric control (tempo mini squat, retro ambulation) Proprioceptive training
Phase V 6 + months	WBAT		Full, pain free ROM	Advanced plyometrics and return to sport