

Osteochondral Allograft Transplantation (OAG) and Meniscal Allograft Transplantation (MAT) and Patellar/Trochlear Autologous Chondrocyte Implantation (MACI) Rehabilitation Protocol

	Weight-bearing	Brace	Range of Motion	Exercises
Phase 1 0-2 weeks	Heel touch only	Locked in full extension at all times Off for hygiene and home exercise only	Gentle passive 0-90° CPM 0-90°	Calf pumps, patellar mobilization, quadriceps tightening sets and SLR in brace at home
Phase 2 2-8 weeks	2-6 weeks: Heel touch only 6-8 weeks: Advance 25% weekly and progress to full with normalized gait pattern	2-4 weeks: Unlocked 0-45° 4-8 weeks: Unlocked 0-90° Off at night for sleeping Discontinue brace at 8 weeks	Advance as tolerated w/ caution during flexion >90° to protect post horn of meniscus	2-6 weeks: Add side-lying hip and core, advance quad set and stretching ^a 6-8 weeks: Addition of heel raises, total gym (closed chain), gait normalization, eccentric quad sets, eccentric hamstring sets. Advance core work with hip, gluteal and core strengthening
Phase 3 8-12 weeks	Full	None	Full	Progress closed chain activities. Advance hamstring exercises, proprioception & balance exercises, lunges & leg press 0-90° only Advance core work with hip, gluteal and core strengthening Begin Stationary Bike at 10 weeks
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
Phase 5 6-12 months	Full	None	Full	Advance non-impact activity. No running, jumping, pivoting, or sports participation unless cleared by MD

CPM – continuous passive motion machine; SLR – Straight-leg raise;

^aAvoid any tibial rotation for first 8 weeks to protect meniscus

Matthew A. Varacallo MD
Penn Highlands Healthcare – Orthopaedic Surgery & Sports Medicine
145 Hospital Avenue, Suite 301
DuBois, PA 15857
O: 814-375-6200
F: 814-375-6452