

Osteochondral Allograft Transplantation — Femoral Condyle Rehabilitation Protocol

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Patient: _____ **DOS:** _____

Surgeon Parameters

Graft site: ☐ Medial condyle ☐ Lateral condyle	Full weight bearing at <u>6</u> wks	Multiple plugs / large or uncontained graft: ☐
Other Precautions:		

Parameters above are patient-specific and supersede the general timeframes below. **Bony incorporation of the graft is the rate-limiting factor: weight bearing advances on a schedule, motion is unrestricted and encouraged from day 1, and impact waits for radiographic incorporation.** The default schedule assumes a single, contained press-fit plug; a concomitant procedure overrides it. Therapist to use clinical judgment to individualize exercise selection and pace within each phase.

Phase	Goals	Precautions	Treatment Focus
Phase 1 Weeks 0–6	Goals - Protect the graft; control pain and effusion - Full passive extension from day 1 - Flexion 90° by wk 2, ≥120° by wks 4–6 - Quad activation; SLR without lag	Precautions - Crutches: touch-down (≤20%) wks 0–2 → 50% wks 2–4 → 75% wks 4–6 → full weight bearing at wk 6 If multiple plugs / large or uncontained graft: touch-down to 6 wks, full by 8 wks - Brace locked in extension for walking until SLR has no lag, then unlocked; off by 6 wks - ROM as tolerated; no limits - No resisted open-chain extension - No impact, twisting, or pivoting	Treatment Focus - High-repetition heel and wall slides, several sessions daily - Bike without resistance from wk 2 as flexion allows - Quad sets, SLR; NMES; BFR if available from wk 2 - Patellar mobilization; hip and core work - Pool once wounds are healed
► Advance to Phase 2 when: minimal effusion, full extension, flexion ≥120°, SLR without lag, full weight bearing pain-free.			
Phase 2 Weeks 6–12	Goals - Normal gait off crutches by 8 wks - Full ROM - Closed-chain strength - Balance and proprioception	Precautions - One crutch until gait is normal - Closed chain 0–60° at first, to 90° by ≈wk 10; back off for pain or effusion - No running, jumping, or twisting	Treatment Focus - Gait training; treadmill walking - Partial squats, wall sits, leg press, step-ups/downs, calf raises - Bike; elliptical from wk 8 - Double- → single-leg balance
► Advance to Phase 3 when: normal gait without a device, full ROM, effusion ≤ trace, single-leg stance 30 s.			
Phase 3 Months 3–6	Goals - Quad/hip strength and endurance (LSI ≥80%) - Unrestricted daily activity - Low-impact recreation	Precautions - No running, jumping, or pivoting until cleared (typically ≈6 months) - Progress load and squat depth gradually - Recurrent effusion, catching, or sharp weight-bearing pain → contact the surgeon	Treatment Focus - Progressive resistance with single-leg emphasis - Core, glute, and pelvic stability; eccentric hamstrings - Cycling, rowing, swimming
► Advance to Phase 4 when: ≥6 months with surgeon clearance, no effusion, strength LSI ≥80%, controlled single-leg squat to 60°.			
Phase 4 Months 6–12	Goals - Jogging, then plyometrics and agility - Strength and hop tests ≥90% - Sport-specific conditioning	Precautions - Jogging only with surgeon clearance and no effusion - Cutting, pivoting, and contact sport typically 9–12 months	Treatment Focus - Walk-jog progression → running - Plyometrics, double → single leg - Agility and sport-specific drills
► Full Release (typically 9–12 months): full pain-free ROM, no effusion, strength and hop tests ≥90% of contralateral, sport-specific progression completed, cleared by physician.			

Thank you for taking care of our patient.

This protocol serves as a general guideline and outline only. Our team defers to the clinical judgment and expertise of the treating physical therapist to make appropriate adjustments and modifications based on the individual patient's presentation, progress, and response to treatment. For any questions regarding this protocol, please contact Dr. Wollenman directly at (561) 215 – 0184.