



Post-operative Rehabilitation Protocol

Osteochondral Allograft Transplant

Phase 1 (0-6 weeks post op):

Goals	<ul style="list-style-type: none"> Minimize pain Reduce edema Restore ROM
Brace/Precautions/ Crutch Use	<ul style="list-style-type: none"> Weight bearing: <ul style="list-style-type: none"> 0-2 weeks: toe-touch to 25% weight-bearing 2-8 weeks: 50% weight bearing Brace: 0-2 weeks: 0-90 degrees; 2-6 weeks: open to available range <ul style="list-style-type: none"> IF graft involving patella or trochlea: leave brace locked in extension for ambulation; unlocked at all other times Brace may be removed for hygiene and therapy
Range of Motion	<ul style="list-style-type: none"> Weeks 0-2: 0-90 degrees Weeks 2+: progress to full ROM
Strengthening	<ul style="list-style-type: none"> Restore quadriceps recruitment through strengthening exercises Quadriceps, hamstring, and gluteal strengthening exercises Exercises to reduce swelling/ effusion (modalities as needed) Quadriceps NMES
Home Instructions	<ul style="list-style-type: none"> Keep surgical dressings clean and dry Change surgical bandages on the 2nd day after surgery (keep covered until first clinic visit) Avoid getting sutures wet until at least 5 days after surgery (do not scrub, soak, or submerge the incisions) Note DVT (blood clot) prophylaxis medications provided by your surgeon to take following surgery – follow those instructions carefully.
Suggested Exercises	<ul style="list-style-type: none"> Ankle pumps Quad isometrics Heel Slides Patella mobilizations SAQ and LAQ (through protected ROM- 90-45 degrees) SLR 4-ways Flexion and extension ROM exercises Clamshells Stationary bike as ROM allows (week 3-4) – low resistance.

Phase 2 (6-12 weeks post op):

Goals	<ul style="list-style-type: none"> Full, pain-free ROM No effusion Good control and no pain with functional movements
Brace/Precautions/ Crutch Use	<ul style="list-style-type: none"> Weight-bearing: <ul style="list-style-type: none"> Weeks 6-8: 50% WB Weeks 8+: Progress to WBAT Brace: Discontinue brace after 6 weeks

	<ul style="list-style-type: none"> ○ Focus on obtaining full extension as WBAT progresses
Range of Motion	<ul style="list-style-type: none"> ● Restore full, pain-free active ROM
Strengthening	<ul style="list-style-type: none"> ● Continue strengthening exercises from Phase I ● Advance gluteal strengthening exercises to closed chain ● Closed chain quadriceps and hamstring exercises ● Begin pool program – gait drills and protected weight bearing strengthening exercises ● Begin stationary bike - progressing resistance as tolerated
Home Instructions	<ul style="list-style-type: none"> ● Restore normal activities of daily living (within weight-bearing restrictions)
Suggested Exercises	<ul style="list-style-type: none"> ● Stationary bike ● Weight shifting ● Double leg balance and proprioceptive training ● Leg Press 0-60 degrees ● Mini-squats ● Wall sits ● TKEs

Phase 3 (12-24 weeks post-op):

Goals	<ul style="list-style-type: none"> ● Normalize gait ● Progress balance and NM control ● Maintain full ROM
Brace/Precautions/ Crutch Use	<ul style="list-style-type: none"> ● Progress to full weight-bearing without crutches
Range of Motion	<ul style="list-style-type: none"> ● Maintain full ROM
Strengthening	<ul style="list-style-type: none"> ● Continue strengthening exercises from Phase 2 ● Progress lower extremity and gluteal strengthening ● Advance lower extremity strengthening exercises (open and closed chain) ● Advance gluteal strengthening exercises ● Begin functional activity/sport specific work
Home Instructions	<ul style="list-style-type: none"> ● Maintain normal activities of daily living
Suggested Exercises	<ul style="list-style-type: none"> ● Progress balance and proprioception exercises (integrate balance with strengthening exercises – BOSU squats and lunges) ● Wall squats ● Lunges ● Include cardiovascular conditioning with elliptical, swimming, and cycle

Phase 4 (6 months+ post-op):

Goals	<ul style="list-style-type: none"> ● Progress to sport specific and/or unrestricted functional activities ● Maximize strength and flexibility to meet demands of individual's sport/work activity
Precautions/ Crutch Use	<ul style="list-style-type: none"> ● None
Range of Motion	<ul style="list-style-type: none"> ● Maintain full ROM
Strengthening	<ul style="list-style-type: none"> ● Continue previous advance lower extremity strengthening, flexibility, and agility programs
Home Instructions	<ul style="list-style-type: none"> ● Maintain normal activities of daily living ● Any return to sport and high impact decision needs clearance from the physician to confirm healing of the graft on x-ray before that progression may begin
Suggested Exercises	<ul style="list-style-type: none"> ● Progress resistance on above exercises as tolerated ● Impact control exercises ● Jogging and running progression ● Sport/work specific balance, agility, and proprioceptive drills

For any questions about operative details or rehabilitation guidelines, please contact the respective surgeon's Athletic Trainer at the contact information found at this link: <https://med.virginia.edu/orthopaedic-surgery/orthopaedic-divisions/sports-medicine/protocols/>