



Meniscal Repair: COMPLEX

Postoperative Therapy Plan

Date of Surgery: _____

Details of Surgery: _____

Surgeon: _____

Next Follow Up with MD/PA: _____

Additional Info: _____

Restrictions/Precautions:

WB Precautions:

- Flat foot touch down using bil crutches with brace locked in extension x 6 weeks
- WBAT with or without crutches with brace 0-90° for week 7

Brace:

- Locked into extension x 6 weeks
- Unlocked 0-90° for week 7 when weight bearing
- Discharge brace beginning at week 8 unless otherwise instructed by surgeon

Other Precautions:

- WB restrictions as above
- ROM limited from full extension to 90° in NWB position x 6 weeks
- Hold bike x 6 weeks

Important Notes:

1. Weeks and months are designated in their relationship to the postoperative timeline in the grids below (e.g. Week 1 indicates postoperative days 0-7).
2. If a precaution/restriction is listed x 4 weeks it indicates **a full 4 weeks**, so it is lifted after day 28.
3. Notes above supersede any notes in the grid below, as they indicate the surgeon's preferences for this individual patient and the circumstances of their surgery.

Phase 1: Acute Postop (Weeks 1-6)	
PRECAUTIONS	<ol style="list-style-type: none"> 1. Brace locked in extension x 6 weeks 2. Flat foot touch down WB using bil crutches x 6 weeks 3. AROM limited from full extension to 90° in NWB positions x 6 weeks 4. Hold bike x 6 weeks
Rehab Focus	<ul style="list-style-type: none"> • Repair protection • Pain and swelling reduction • Knee mobility: hyperextension to 90° unless otherwise indicated • Quad activation • Gait training as per precautions • Patient education
Interventions to Consider	<p><u>Pain and swelling:</u></p> <ul style="list-style-type: none"> - Ice, compression, elevation - Ankle pumps <p><u>Mobility:</u></p> <ul style="list-style-type: none"> - PROM of knee into flexion (to 90°) and extension, attention to hyperextension - AROM into flexion (to 90°) and extension - Low intensity, long duration stretches (eg. heel prop) - Patellar mobilization <p><u>Strength:</u></p> <ul style="list-style-type: none"> - Quad sets progressing to SLR without lag - NMES - BFR encouraged if appropriate <p><u>Gait:</u></p> <ul style="list-style-type: none"> - FFWB with brace locked in extension x 6 weeks
Criteria for Progression to Phase 2: ____ AROM 0-90° in NWB positions ____ SLR without extension lag	

Phase 2: Subacute Postop (Weeks 7+8)	
PRECAUTIONS	<ol style="list-style-type: none"> 1. <u>7 weeks:</u> Brace unlocked 0-90° WBAT 2. <u>8 weeks:</u> Discharge brace unless otherwise instructed by surgeon <ul style="list-style-type: none"> • If struggling to achieve symmetric extension, consider discussion with surgeon
Rehab Focus	<ul style="list-style-type: none"> • Repair protection • Hyperextension AROM • Progressive flexion AROM • Quad strength • Proprioception • Gait training in brace progressing to FWB

Interventions to Consider <i>Continue previous interventions as appropriate</i>	<u>Mobility:</u> <ul style="list-style-type: none"> - Continued attention to knee hyperextension - Progressive knee flexion - Initiate bike without resistance, may initiate elliptical <u>Strength:</u> <ul style="list-style-type: none"> - BFR encouraged if appropriate, attention to quad engagement/endurance - Introduce CKC exercises in pain free range with brace - Progress proximal (hip + core) strength/endurance - SL step ups <u>Neuromuscular Re-Education:</u> <ul style="list-style-type: none"> - Proprioception: Single leg stability <u>Gait:</u> <ul style="list-style-type: none"> - 7 weeks: Work toward even WB without compensation in brace 0-90°, - 8 weeks: without brace - Attention to TKE integration into gait, ample swing limb clearance - 8 weeks: Initiation of reciprocal stair climbing if appropriate <u>Cardio:</u> <ul style="list-style-type: none"> - Bike without resistance, may initiate elliptical - Initiation of swimming or pool walk/jog if incisions fully closed
Criteria for Progression to Phase 3: <ul style="list-style-type: none"> ___ Symmetric extension AROM ___ SLR x 20 without extension lag ___ FWB without gait deviation Important Milestones: <ul style="list-style-type: none"> ___ Flexion AROM within 80% of uninvolved ___ Pain free DL squat to 60° with symmetric loading 	

Phase 3: Late Postop (Weeks 9-11)	
PRECAUTIONS	1. No CKC past 90° 2. If struggling to achieve symmetric extension, consider discussion with surgeon
Rehab Focus	<ul style="list-style-type: none"> • Repair protection • Functional movement optimization • Strength progression to SL • Neuromuscular control + endurance
Interventions to Consider <i>Continue previous interventions as appropriate</i>	<u>Mobility:</u> <ul style="list-style-type: none"> - Knee ROM normalized - Work toward CKC ankle dorsiflexion > 35° or within 5° of limb symmetry <u>Strength:</u> <ul style="list-style-type: none"> - PREs for LE strengthening - Progress SL CKC loading with attention to mechanics

	<u>Neuromuscular Re-Education:</u> <ul style="list-style-type: none"> - Proprioception + single leg stability: <ul style="list-style-type: none"> o Progress to include ball tosses, neurocognitive challenges as appropriate <u>Cardio:</u> <ul style="list-style-type: none"> - Continued cycling, swimming, elliptical
Criteria for Progression to Phase 4: <ul style="list-style-type: none"> _____ Maintain symmetric extension ROM _____ Minimal to no joint effusion with activity _____ Pain free DL squat to 60° with optimal mechanics Important Milestones: <ul style="list-style-type: none"> _____ Flexion AROM within 90% of uninvolved _____ SL stance x 60 sec without LOB 	

Phase 4: Progressive Functional (Months 3-4)	
PRECAUTIONS + Considerations	<ul style="list-style-type: none"> • Movements should remain primarily in sagittal plane
Rehab Focus	<ul style="list-style-type: none"> • SL strength + endurance • Eccentric control • Light impact acceptance + mechanics
Interventions to Consider <i>Continue previous interventions as appropriate</i>	<u>Strength:</u> <ul style="list-style-type: none"> - Continued progression of quad, hamstring, proximal strength + control - Increased emphasis on SL loading <u>Functional Training:</u> <ul style="list-style-type: none"> - Continue SL stability progression: <ul style="list-style-type: none"> o Reaches outside of BOS, ball tosses, neurocognitive challenges as appropriate - Initiate submax sagittal plane hop progression with attention to mechanics: <ul style="list-style-type: none"> o DL symmetric > DL asymmetric > SL hop <u>Cardio:</u> <ul style="list-style-type: none"> - Continued cycling, swimming, elliptical
Criteria for Progression to Phase 5: <ul style="list-style-type: none"> _____ SL squat x 10 with optimal mechanics _____ LQYBT composite ≥ 75% Important Milestones: <ul style="list-style-type: none"> _____ Knee Flexion ROM within 5° of uninvolved _____ HS and Quad strength ≥ 75% LSI _____ *HS strength may not recover as quickly if HS autograft, quad strength may not recover as quickly if quad autograft _____ Optimal mechanics with SL hopping in place x 30 	

Phase 5: Sport Specific Prep (Months 4-5)	
Rehab Focus	<ul style="list-style-type: none"> Strength progression Power development, plyometric progression and mechanics Multidirectional movement control
Interventions to Consider <i>Continue previous interventions as appropriate</i>	<p><u>Strength:</u></p> <ul style="list-style-type: none"> Continued progression of quad, hamstring, proximal strength + control SL strength and stability with increased load <p><u>Power + Plyometrics:</u> with attention to mechanics:</p> <ul style="list-style-type: none"> Moderate intensity Progress power & eccentric control Progress speed of force generation <p><u>Sport Specific Prep:</u></p> <ul style="list-style-type: none"> Increase difficulty of neurocognitive tasks Initiate running progression if: <ul style="list-style-type: none"> Quad strength: $\geq 70\%$ LSI Optimal mechanics with SL hopping in place x 1 min 30+ SL squat in 1 min to 30°-45° knee flexion with optimal mechanics WNL running mechanics in in clinic trial Month 5: Initiate deceleration activities, lateral hops with optimal mechanics <p><u>Cardio:</u></p> <ul style="list-style-type: none"> Continued cycling, swimming, elliptical Initiate progressive return to run program as appropriate
<p>Criteria for Progression to Phase 6:</p> <p>____ HS & Quad Strength $\geq 80\%$ LSI</p> <p>____ LQYBT asymmetry < 6 cm (A, PL, & PM) & $\geq 90\%$ Composite</p> <p>____ Good tolerance & optimal mechanics with DL and SL hopping</p> <p>Important Milestones:</p> <p>____ Quad strength $>70\%$ BW</p> <p>____ HS strength $>50\%$ BW</p>	

Phase 6: Progressive Sport Specific (Months 6-8)	
Rehab Focus	<ul style="list-style-type: none"> Optimize physical performance, power, and capacity Sport specific movements and patterns

Interventions to Consider <i>Continue previous interventions as appropriate</i>	Strength: <ul style="list-style-type: none"> - Continued progression of quad, hamstring, proximal strength + control - Functional loaded strengthening progressions Sport Specific: <ul style="list-style-type: none"> - Power progression - Controlled multiplanar movements and hops with optimal mechanics - Initiate controlled pivoting and cutting - Continued progression of neurocognitive tasks Cardio: <ul style="list-style-type: none"> - Continued cycling, swimming, elliptical, running
Criteria for Progression to Phase 7: <ul style="list-style-type: none"> ___ Hop Testing LSI >90% ___ HS and Quad strength LSI >90% ___ Optimal mechanics with plyometrics, pivoting Important Milestones: <ul style="list-style-type: none"> ___ Discuss with patient their specific deficits and their sport specific concerns 	

Phase 7: Return to Sport Prep (Months 9-12)	
Rehab Focus	<ul style="list-style-type: none"> • Symmetrical strength and power • Optimal biomechanics with sport specific activities • Patient confidence in return to sport
Interventions to Consider <i>Continue previous interventions as appropriate</i>	Strength: <ul style="list-style-type: none"> - Continued progression of quad, hamstring, proximal strength + control - Functional loaded strengthening progressions Sport Specific: <ul style="list-style-type: none"> - High intensity sport specific movement re-training, sport specific drills - Power and plyometric under fatigued conditions, neurocognitive demands Cardio: <ul style="list-style-type: none"> - Continued cycling, swimming, elliptical, running
Criteria for Return to Sport: See SLHS Return to Sport Testing Protocol <ul style="list-style-type: none"> ___ LQYBT composite \geq 95% ___ Hop Testing LSI \geq 95% ___ Quad and Hamstring LSI \geq 95% ___ Hamstring to Quad ratio \geq 67% ___ Quad Torque \geq 3Nm/Kg Follow up with surgeon regarding official return to sport status.	