

PROTOCOL

POST OPERATIVE ACL RECONSTRUCTION

	Approximate Time Frame (Weeks)	Activity	Goals
PHASE I	0-2	<p>WB Status: PWB 50%*</p> <p>Brace: 0-90 x 6 weeks</p> <p>ROM: 0-120+*</p> <p>Manual: patella mobilization, gentle STM to reduce edema, soreness, stiffness above/below knee PRN</p> <p>Exercise:</p> <ul style="list-style-type: none"> • Quad sets (w/NMES PRN) • P/AA range of motion exercises • Multiplane SLR/OKC hip w/knee straight • Calf raises/ankle strengthening <p>Cardiovascular: Begin stationary bike when ROM allows</p>	<ul style="list-style-type: none"> ◇ Extension to 0 ◇ SLR no lag ◇ Control inflammation ◇ Minimize DVT risk ◇ 100-120+ flexion ◇ Normalize PF mobility ◇ Normalize gait with crutches
PHASE II	2-6	<p>WB: FWBAT no limp</p> <p>Brace: continue 0-90 until week 6</p> <p>ROM: full</p> <p>Manual: STM/MFR PRN, scar mobilization once healed. Patella mobs 0/30. <i>Aggressive patella/anterior interval mobilization on BTB grafts</i></p> <p>Exercise progression:</p> <ul style="list-style-type: none"> • CKC double leg -> single leg progression • Concentric and eccentric considerations • Hip/core/calf strengthening • Proprioception • Hamstring strength-<i>no ham curl w/external load for hamstring autograft</i> • LE stretching w/consideration for harvest site <p>Cardiovascular: Stationary bike w/resistance Short walks, Alter-G Deep pool running at week 4 <i>and incisions fully healed</i></p>	<ul style="list-style-type: none"> ◇ normalize gait ◇ Minimize swelling, PF pain ◇ Full ROM; extension equal to opposite side ◇ Muscular endurance progressing into strength ◇ Proper squat pattern; <i>perform on two legs with good control, equal WB before progressing to single leg</i>

*See MD's post op orders for exceptions

- Progression is criterion-based and will be slower than timeframes listed if phase goals are not met

	Approximate Time Frame (Weeks)	Activity	Goals
PHASE III	6-12	<p>Manual: PRN to address ROM deficits/PF pain. Mobilize scars (<i>BTB graft</i>)</p> <p>Exercise progression:</p> <ul style="list-style-type: none"> Independent myofascial management (FR, massage stick, ball) Controlled movement series CKC PRE's bilateral & unilateral, emphasizing single leg strength Advance core program/accessory hip muscles <i>Hamstring grafts:</i> gradually add resistance to knee flexion 8-10 wks <p>Cardiovascular:</p> <ul style="list-style-type: none"> Swimming, shallow pool running, elliptical 6 weeks Outdoor biking 8-10 weeks Interval CV work, Alter-G running 10-12 weeks <p>Running/Agility: Basic linear ladder drills week 10</p>	<ul style="list-style-type: none"> Minimal to no PF pain as strength training advances Full terminal motion No effusion 75% LSI of quads, hams Single leg squat x 90 to at least 30 degrees With 75% LSI <p><i>Must meet goals in order to begin running</i></p>
PHASE IVa	3-6 mos	<p>Strengthening:</p> <ul style="list-style-type: none"> Advance PRE's of hip, knee, ankle Incorporate power into training, considering individual need <p>Cardiovascular: High intensity low impact cardio to build fitness, lower intensity cardio for recovery and Alter-G for progressive loading. <i>Impact starting 2-3 days/week</i></p> <p>Running Progression:</p> <ul style="list-style-type: none"> Basic ladder/linear drills with gradual advancement of difficulty Walk/jog interval -3 months Linear acceleration/deceleration-4months Sprinting, cutting, lateral agility-5 months (gradually increase intensity) <p>Jumping: single response progressing to multiple response jumps</p> <ul style="list-style-type: none"> Double leg, low amplitude jumps starting 3-4 months Progressing to single leg hop 4-5 months 	<ul style="list-style-type: none"> Manual therapy only PRN to address terminal motion deficit and/or pain Control inflammation with increasing loads/impact Limb symmetry with all strength exercises Normalize running gait Y test <4cm difference Lateral dip x 1 minute with 90% LSI IKDC > 7/10
PHASE IVb	5-9 mos	<p><i>Focus shifted to impact and sports specific activities</i></p> <p>Strength:</p> <ul style="list-style-type: none"> Weight training volume is maintaining or decreasing, continue to increase resistance as tolerated 2-3x/week Perform strength training after running/agility OR on opposite days <p>Plyometrics</p> <ul style="list-style-type: none"> Progress based on sport demands, individual ability <p>RTS progression: (see specific sport protocol for details)</p> <ul style="list-style-type: none"> Unidirectional agility drills, progressing to multidirectional Begin position and sport specific skills-drills Non-reactive progressing to reactive drills-coach or PT directed <p><i>Practice/game progression, after passing sports test:</i></p> <ul style="list-style-type: none"> ⇒ Participation in all practice drills ⇒ Scrimmage participation with no contact ⇒ Scrimmage or game situation with contact, limited playing time ⇒ Return to sport with increasing game minutes 	<ul style="list-style-type: none"> Reconditioning for sport demands Correct faulty movement with high level tasks Emphasize both limbs for injury prevention RTS test @ 6+ months IKDC > 9/10 Return to practice with gradual progression to game play <p><i>RTS test may be modified per therapist's discretion based on patient demographics and goals</i></p>

Full return is sport and patient specific and is expected no sooner than 6-9 months