

Standard Anterior Cruciate Ligament Reconstruction Guideline

Time	Goals	Precautions/Restrictions	Treatment
Weeks 0 – 2	<ul style="list-style-type: none"> Reduce pain and swelling Full passive extension Maintain patellar mobility Active quadriceps control Attain full WB 	<ul style="list-style-type: none"> Brace locked in extension with WB No open chain knee extensions No isolated hamstring strengthening with hamstring autograft WBAT with crutches <p><i>**Defer to operative note for surgeon specific WB instructions with concurrent injuries**</i></p>	<ul style="list-style-type: none"> ROM (as tolerated) <ul style="list-style-type: none"> Extension focus Quadriceps recruitment/NMES Patellar mobilization Gait training with crutches Initiate BFR; if applicable
Weeks 2 – 6	<ul style="list-style-type: none"> Full and pain-free ROM Progression of quadriceps strength/endurance SLR without extensor lag Normalized gait mechanics DL squat to 90° with good mechanics <p style="text-align: center; color: red;">Please contact surgical team if full knee extension and unassisted straight leg raise without extensor lag not achieved by week 4.</p>	<ul style="list-style-type: none"> No running, jumping, cutting, pivoting, or twisting Consider AROM knee extension at 4 weeks Avoid painful activities/exercises Brace unlocked with adequate quad control 	<ul style="list-style-type: none"> Progress ROM as tolerated Gait training progressing from assistive device Closed kinetic chain strengthening as tolerated Hip and core stabilization exercises Optional therapies: anti-gravity treadmill
Weeks 6 – 12	<ul style="list-style-type: none"> Full, symmetric and pain-free ROM Progress quadriceps strength/endurance Increase functional activities Discontinue brace with normalized gait mechanics by week 8 	<ul style="list-style-type: none"> Avoid painful activities/exercises Initiate open kinetic chain exercise with progressive loading No running, jumping, cutting, pivoting, or twisting 	<ul style="list-style-type: none"> Progressive double and single limb strengthening End range flexion and extension Aerobic training on stationary bike, elliptical, stair climber, UBE Progression of balance/proprioception
Weeks 12 – 16	<ul style="list-style-type: none"> Full, symmetric ROM Progressive resistance training Pass Return to Run criteria (See appendix) No effusion with increased activity 	<ul style="list-style-type: none"> Avoid painful activities/exercises No jogging on painful or swollen knee 	<ul style="list-style-type: none"> Progress hypertrophy and strength training Continue balance/proprioceptive training Perform Return to Run testing (between 12-16 weeks) Initiate running program; if applicable
Months 4 – 6	<ul style="list-style-type: none"> Full, symmetric ROM Progress sport specific training Successful progression of return to run program Initiate plyometric and agility training 	<ul style="list-style-type: none"> Avoid painful activities/exercises No jogging on a painful or swollen knee No participation in sports 	<ul style="list-style-type: none"> Progression of return to jogging program Continue progressive resistive exercise (PRE) Increase intensity of plyometric and agility training Implement ARC Program
Months 6 – 9	<ul style="list-style-type: none"> Continue to progress functional strengthening Sport-specific training Pass Return to Sport criteria 	<ul style="list-style-type: none"> No participation in sports unless specified by care team Avoid painful activities 	<ul style="list-style-type: none"> Continue PRE with strength, power, velocity focus Progress plyometrics and agility Begin sport-specific training Gradual RTS progression if criteria passed

This guideline is not meant to be prescriptive but a recommendation to the rehabilitation process. Progress may vary based on specifics of injury and procedure.

Anterior Cruciate Ligament Reconstruction Functional Assessment

Phase	Criteria	Testing
Weeks 12-16 Must meet criteria prior to running	<ul style="list-style-type: none"> • Full, symmetric ROM • Y-balance anterior reach asymmetry < 5 cm • Quadriceps strength for isometric test > 80% of uninvolved side • Hip abduction strength for isometric test > 80% of uninvolved side 	<ul style="list-style-type: none"> • Knee assessment including assessment for effusion • Passive and active ROM • Y-balance anterior reach • Isometric knee extension at 60° and 90° with handheld dynamometer (HHD) • Isometric hip abduction at neutral with HHD • Single leg isometric squat at 60° on 3PQ • Forward step-down assessment • FOTO, IKDC
Month 6	<ul style="list-style-type: none"> • Full, symmetric ROM • 100% limb symmetry (LSI) for isometric testing • 100% LSI for functional testing • ACL-RSI > 56 	<ul style="list-style-type: none"> • Knee assessment including assessment for effusion • Passive and active ROM • Hop Test <ul style="list-style-type: none"> ○ Single Hop ○ Triple Hop ○ Crossover hop • Isometric knee extension at 60° and 90° with HHD • Isometric knee flexion at 60° degrees with HHD • Single leg drop vertical jump • IKDC, ACL-RSI
Month 9+ Must meet criteria prior return to sport	<ul style="list-style-type: none"> • Full, symmetric ROM • 100% LSI for isometric and functional testing • ACL-RSI > 56 • Safe integration and progression to sport 	<ul style="list-style-type: none"> • Knee assessment including assessment for effusion • Passive and active ROM • Hop Test <ul style="list-style-type: none"> ○ Single-leg triple Hop ○ Medial triple hop ○ Medial rotation hop • Isometric knee extension at 60° and 90° with HHD • Isometric knee flexion at 60° with HHD • Single leg drop vertical jump • Agility T-test • IKDC, ACL-RSI

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