

REHABILITATION GUIDELINES FOR ACL REPAIR

PHASE I (0-2 WEEKS)

DATES:

Appointments	<ul style="list-style-type: none"> Physical therapy 2-3x/week, beginning 2-5 days post-op
Rehabilitation Goals	<ul style="list-style-type: none"> Full extension symmetrical to contralateral knee before the first post-op visit at 2 weeks Flexion to 120° 20° SLR without quad lag Off of crutches
Precautions	<p>WB:</p> <ul style="list-style-type: none"> WBAT with crutches <p>Brace:</p> <ul style="list-style-type: none"> Brace locked in extension until first PT visit, then unlocked at all times. May remove brace for sleep and exercises after 1 week
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> Prolonged extension- prone hang, supine with roll under ankle Heel slides, wall slides, prone knee flexion Isometric quad set, then SLR Hamstring isometrics 4-way hip and ankle exercises including calf pumps Initiate proprioceptive/balance exercises to include single leg stance, weight shifts forward, retro, lateral Patellar mobilizations (especially cranially) Ice 5x/day, 20 min each time, especially after exercises
Cardiovascular Exercises	<ul style="list-style-type: none"> Stationary bike- no resistance
Progression Criteria	<ul style="list-style-type: none"> DC crutches when quad control returns, full extension achieved, stable with low fall risk.; wean to 1 crutch if steady in gait

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PHASE II (2-4 WEEKS)

DATES:

Appointments	Continue physical therapy 2-3x/week
Rehabilitation Goals	<ul style="list-style-type: none"> • Full ROM • Advanced strengthening • Consider early neuromuscular retraining
Precautions	<ul style="list-style-type: none"> • Wear brace unlocked until good quad control except for sleeping, exercises
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> • AVOID OPEN CHAIN RESISTIVE ESPECIALLY WITH WEIGHTS (resistance bands OK for hamstring/quad) • Quad: <ul style="list-style-type: none"> - Mini squats/wall squats - step ups • Hamstring: <ul style="list-style-type: none"> - Bridge - standing hamstring eccentrics • Calf: <ul style="list-style-type: none"> - heel raises - calf press • Hip extension, ABD, ADD • Consider balance board/wobble board for early NM retraining
Cardiovascular Exercises	<ul style="list-style-type: none"> • Stationary bike: as soon as motion (0-115 degrees) allows • Elliptical • Stairmaster • Pool: <ul style="list-style-type: none"> - Walking - Deep water aqua-jogging - NO KICKING (begin at 4-6 weeks)
Progression Criteria	<ul style="list-style-type: none"> • Full ROM • Minimal Effusion • Functional control for ADLs achieved • DC brace: with adequate quad control for gait on level surfaces, inside. 6 weeks post-op.

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PHASE III (4 – 8 WEEKS)

DATES:

Appointments	Continue physical therapy 1-2x/week as indicated
Rehabilitation Goals	<ul style="list-style-type: none"> • Maintain full ROM (should be full extension and to 135° flexion) • Progress neuromuscular retraining program • Core integration
Precautions (Phase III continued)	<ul style="list-style-type: none"> • No downhill walking/running, downhill skiing, downhill biking until 4.5 months
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> • HEP 5x per week • Progress neuromuscular proprioceptive/balance exercises including single leg balance progression- varying surfaces • Pool: <ul style="list-style-type: none"> - 4 way hip - lateral movement - deep water jogging in place (no freestyle or frog/breaststroke kick) • Strengthening: <ul style="list-style-type: none"> - lunges, sport cord, wall squats, step up/down
Cardiovascular Exercises	<ul style="list-style-type: none"> • May begin road biking outdoor on flat roads only • May begin treadmill walking
Progression Criteria	<ul style="list-style-type: none"> • Neuromuscular exercises without difficulty

PHASE IV (8 WEEKS TO 3 MONTHS)

DATES:

Appointments	Continue physical Therapy 1-2x per week
Rehabilitation Goals	<ul style="list-style-type: none"> • 12 weeks: light running/hopping without pain or swelling , progress to running patterns at 75% speed • Good jumping mechanics- NO DYNAMIC VALGUS • Hop drills without difficulty
Precautions	<ul style="list-style-type: none"> • No downhill walking/running, downhill skiing, downhill biking until 4.5 months

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Suggested Therapeutic Exercises	<ul style="list-style-type: none"> • HEP 5x per week • Agility drills: shuffling, hopping, running patterns (Ex: figure 8) • Sport specific closed-chain exercises: <ul style="list-style-type: none"> - leg press (0-60°) - step ups - mini squats (0-60°) - short arc quad (30-90°) - hamstring curls with light weight/high repetition
Cardiovascular Exercises	<ul style="list-style-type: none"> • Begin endurance closed-chain exercises 3-4x/week <ul style="list-style-type: none"> - Stairmaster, stationary bike, elliptical, NordicTrack (short stride). - Focus on increasing endurance. • Progress jogging on treadmill or even ground to running patterns at 75% • Pool: may start freestyle swimming (avoid frog/breaststroke kick), progress to shallow water jogging
Progression Criteria	<ul style="list-style-type: none"> • Running without knee effusion • Hopping/agility drills without knee pain or effusion

PHASE V (3 TO 6 MONTHS)

DATES:

Appointments	Continue physical therapy 2 visits per month to review HEP
Rehabilitation Goals	<ul style="list-style-type: none"> • Able to complete a running program • May begin plyometric program: jump rope exercises • Hamstring and quadriceps strength 90 % of normal leg • Return to sport testing at 9 months post-op, prior to MD visit
Precautions	<ul style="list-style-type: none"> • Earliest return to full sports = 9 months.
(Phase IV continued) Suggested Therapeutic Exercises	<ul style="list-style-type: none"> • HEP 4-5x per week • Agility drills: <ul style="list-style-type: none"> - Shuffling - Hopping - running patterns (Ex: figure 8) • Sport specific: <ul style="list-style-type: none"> - plyometric program - fast straight running - backward running - cutting, cross-overs, carioca, etc. in controlled environment

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Cardiovascular Exercises	<ul style="list-style-type: none">• Pool available: may advance swimming (avoid frog/breaststroke kick)
Progression Criteria (Return to Sport)	<ul style="list-style-type: none">• quadriceps and hamstring strength at least 90% of opposite leg• Single leg hop test and vertical jump at least 90% of opposite leg• Jog, full speed run, shuttle run, and figure of 8 running without a limp• Full controlled acceleration and deceleration• Squat and rise from a full squat• No effusion or quadriceps atrophy

References:

Mammoth Orthopedic Institute
The Steadman Clinic
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