

REHABILITATION GUIDELINES FOR ARTHROSCOPIC MENISCAL REPAIR

PHASE I (0-3 WEEKS)

DATES:

Appointments	MD appointment at 2 weeks for suture removal, 6 weeks for follow up 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 • PROM 0-90° • 20° SLR without quad lag
Precautions	<p>ROM: Flexion limited to 90 degrees x 6 weeks</p> <p>Brace:</p> <ul style="list-style-type: none"> • Brace locked 0° for ambulation, brace open 0-90° at rest in sitting • May remove brace for sleep and exercises after 1 week <p>WB:</p> <ul style="list-style-type: none"> • WBAT with crutches, brace locked in 0° extension x6 weeks post-op • <u>If repair is a root repair, patient is non-weight bearing x 6 weeks</u>
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> • Prolonged extension- prone hang, supine with roll under ankle • Heel slide, wall slide • Isometric quad set, then SLR • Hamstring isometrics • 4-way hip and ankle exercises • Initiate proprioceptive/balance exercises: weight shifts forward, retro, lateral with brace locked in extension • Patellar mobilizations (especially cranially) • Ice 5x/day, 20min each time. Especially after exercises
Cardiovascular Exercises	<ul style="list-style-type: none"> • UBE

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Progression Criteria	<ul style="list-style-type: none"> DC crutches when quad control returns, full extension achieved, stable with low fall risk, in brace locked to 0° extension only
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PHASE II (3-6 WEEKS)

DATES:

Appointments	Continue physical therapy 2x/week (can drop to 1 x/week if 0-90 achieved)
Rehabilitation Goals	<ul style="list-style-type: none"> AROM 0-90° Advanced strengthening (within brace/ROM precautions) Consider early neuromuscular retraining with NMES DC brace at 6 weeks post-op, continue brace if patient does not have full extension and/or cannot perform SLR without extension lag.
Precautions	<p>ROM: Flexion limited to 90 degrees x 6 weeks</p> <p>Brace:</p> <ul style="list-style-type: none"> Wear brace locked in extension for ambulation and all weight bearing x 6 weeks except for sleeping, exercises
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> Quad: quad set, SAQ, LAQ Hamstring: hamstring set, prone knee flexion Calf, hip: extension, hip ABD, hip ADD in non-weight bearing
Cardiovascular Exercises	<ul style="list-style-type: none"> UBE
Progression Criteria	<ul style="list-style-type: none"> Minimal Effusion Functional control for ADLs achieved

PHASE III (6 WEEKS – 3 MONTHS) DATES:

Appointments	Continue physical therapy to 1-2x/week
Rehabilitation Goals	<ul style="list-style-type: none"> Full ROM Progress neuromuscular retraining program Core integration
Precautions	<ul style="list-style-type: none"> May DC brace locked in extension for gait at 6 weeks

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	<ul style="list-style-type: none"> No downhill walking/running, downhill skiing/biking x 4.5 months
Suggested Therapeutic Exercises (Phase III continued)	<ul style="list-style-type: none"> HEP 5x per week Strengthening: begin closed kinetic chain exercises with knee flexion Mini squat, mini lunges, bridges, sport cord, wall squats, step up/down Progress neuromuscular proprioceptive/balance exercises including single leg balance progression- varying surfaces Pool available: begin 4 way hip, lateral movement, deep water jogging in place (no freestyle or frog/breaststroke kick)
Cardiovascular Exercises	<ul style="list-style-type: none"> Stationary bike with resistance and operative leg pedaling, may begin road biking outdoor on flat roads only Elliptical, Stair master, Treadmill walking
Progression Criteria	<ul style="list-style-type: none"> Neuromuscular exercises without difficulty No dynamic valgus with exercises

PHASE IV (3 TO 5 MONTHS)

DATES:

Appointments	Continue physical therapy 1-2x per week
Rehabilitation Goals	<ul style="list-style-type: none"> 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
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> HEP 5x per week Agility drills: shuffling, hopping, running patterns (Ex: figure 8) Some sport specific: closed-chain exercises including 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) Gait training: jogging on treadmill or even ground at 12 weeks, progress to running patterns at 75% Pool available: may start freestyle swimming (avoid frog/breaststroke)

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	kick), progress to shallow water jogging
Progression Criteria	<ul style="list-style-type: none"> • Running without knee pain or effusion • Hopping/agility drills without knee pain or effusion

PHASE IV (5 TO 8 MONTHS)

DATES:

Appointments	Continue physical therapy 2 visits per month to review HEP
Rehabilitation Goals	<ul style="list-style-type: none"> • Slow progression from jogging on even ground or treadmill to running patterns, hill work, cutting, jumping, pivoting • May begin plyometric program: jump rope exercises
Precautions	<ul style="list-style-type: none"> • Earliest return to sport = 9 months • Must pass return to sport test
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> • HEP 4-5x per week • Return to sport testing at 9 months post-op, prior to MD visit • Agility drills: shuffling, hopping, running patterns (Ex: figure 8) • Sport Specific: plyometric program, fast straight running, backward running, cutting, cross-overs, carioca, etc. in controlled environment
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

PT name and date: Ariel Duvall June 2017

MD name and date: Timothy Crall June 2017

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