

# Postoperative Rehabilitation Protocol for ACL Reconstruction with Meniscus Root Repair



Dr. MacLean

Physical therapy should be started within a few days after surgery

## Phase 1: Postoperative weeks 0-6

### GOALS

- Protect graft
- Minimize pain/swelling

### PRECAUTIONS/BRACE/CRUTCHES

- Brace to be worn and set at 0-90 degrees for 6 weeks
- Brace to remain unlocked at all times following resolve of nerve block
- Brace may be removed for hygiene and therapy
- Flat foot (25%) weight bearing for 6 weeks

### RANGE OF MOTION

- Ensure full extension is achieved
- Active and Passive ROM 0-90 during weeks 0-4
- May progress ROM as tolerated after week 4. No forced flexion
- **No weight bearing with knee flexion >90 degrees**

### STRENGTHENING

- Ankle pumps
- Patellar mobilizations
- Work on quadriceps control (quad sets, heels slides, SLR)
- SLR in all planes with brace in full extension until quadriceps strength is sufficient to prevent extension lag – add weight as tolerated to hip abduction, adduction, and extension
- Quadriceps NMES
- Hamstring stretches

- Quadriceps isometrics at 60 and 90 degrees
- Stationary Bike – initially only for promotion of ROM

### MODALITIES PRN

## Phase 2: Postoperative weeks 6-10

### GOALS

- Restore normal gait
- Maintain full extension, progress to full flexion
- Protect graft
- Increase hip, quadriceps, hamstring, and calf strength
- Increase proprioception

### PRECAUTIONS/BRACE/CRUTCHES

- Discontinue brace is capable of SLR without extensor lag
- Discontinue crutches and progress to full weight bearing

### RANGE OF MOTION

- Continue progressing in range of motion / flexibility to full knee flexion.
- Maintain full extension

### STRENGTHENING

- **No loading the knee in greater than 90 degrees of flexion until week 12**
- Continue CKC strengthening and progress as tolerated: One-leg squats, leg press, step ups at increased height, partial lunges, deeper wall sits, lunge walks
- Stairmaster – begin with short steps, avoid hyperextension

*If you have any problems or questions,  
please call your doctor's office (8am-5pm).*

*Answering service for after hours.*

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- Nordic Trac or elliptical machine for conditioning
- Stationary bike – progress time and resistance as tolerated
- Continue to progress proprioceptive activities: ball toss, balance beam, mini-trampoline balance
- Continue to progress hip, hamstring, and calf strengthening as tolerated
- If available, begin running in pool (waist deep) or an unweighted treadmill at 8 weeks

## Phase 3: Postoperative weeks 10-16

### GOALS

- Full ROM
- Improve strength, endurance, and proprioception of lower extremity
- Protect patellofemoral joint
- Normal running mechanics / gait
- Strength approximately 70% of the uninvolved lower extremity (using isokinetic evaluation if available)

### RANGE OF MOTION

- Continue ROM exercises to maintain full active ROM

### STRENGTHENING

- **No loading the knee in greater than 90 degrees of flexion until week 12**
- Initiate open chain kinetic extensions 90-30 degrees, process to eccentrics
- Begin swimming if desired
- If available, isokinetics (with anti-shear device) – begin with mid-range speeds (120 degrees / sec to 240 degrees / sec)
- Progress toward FWB running at 12 weeks
- Progressive hip, quadriceps, hamstring, and calf strengthening
- Advance proprioceptive activities to initiate agility activities
- Recommend isokinetic test with anti-shear device at 12 weeks (used to guide continued strengthening)

## Phase 4: Postoperative months 4-6

### GOALS

- Symmetric performance of basic and sport specific agility drills
- Single hop and 3 hop tests 85% of uninvolved lower extremity
- Quadriceps and hamstring strength at least 85% of uninvolved lower extremity per isokinetic strength test

### RANGE OF MOTION

- Maintain full ROM

### STRENGTHENING

- Continue and progress flexibility and strengthening program based on individual needs and deficits
- Initiate plyometric program as appropriate for patient's goals
- Agility progressing including, but not limited to: Side steps, crossovers, figure 8 running, shuttle running, one-leg & two-leg jumping, cutting, acceleration / deceleration sprints, agility ladders drills, sport-specific drills as appropriate for patient
- Assessment of running on treadmill for proper running mechanics
- Continue progression of running distance based on patient needs

## Phase 5: Postoperative 6 months and beyond

### GOALS

- Single hop and 3 hop tests at least 85% of uninvolved lower extremity
- Quadriceps and hamstring strength at least 85% of uninvolved lower extremity per isokinetic strength test
- Safe return to athletics/work
- Maintenance of strength, endurance, proprioception
- Educate patient with regards to any possible limitations

### RANGE OF MOTION

- Maintain full ROM

### STRENGTHENING

- Maintenance program for strength and endurance with gradual return to sports participation/work.
- **All patients should consult with their operative surgeon on specific return to work/return to play release.**