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## POST-OPERATIVE ACL RECONSTRUCTION with MENISCUS REPAIR OR MICROFRACTURE

Diagnosis/Surgery:

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### PHASE 1: WEEKS 0-6

#### Goals:

1. Protect graft and graft fixation
2. Minimize effects of immobilization
3. Control inflammation/swelling

#### Brace/precautions:

1. 0-2wks TTWB, 2-6wks 50% WB
2. Brace 0-6wks 0-90°
3. Remove brace for hygiene and therapy

#### ROM:

1. 0-90°, no forced flexion

#### Exercises/Strengthening:

1. Restore quad recruitment
2. Quad, hamstring, gluteal strengthening  
(Delay hamstring strengthening for 12wks if HS autograft)  
Hamstring curls, quad sets
3. Patella mobilizations
4. Ankle pumps
5. SLR all planes with brace in full extension until quad sufficient to prevent lag
6. Gastroc/soleus stretching

## PHASE 2: WEEKS 6-10

### Goals:

1. Restore normal gait with stair climbing
2. Maintain full extension, progress toward full ROM
3. Protect graft and graft fixation
4. Increase hip, quad, hamstring, calf strength
5. Increase proprioception

### Brace/precautions:

1. D/c brace if capable of SLR without extensor lag
2. Progress to full WBAT

### ROM:

1. Restore full, pain free active ROM

### Exercises.Strengthening:

1. ROM/flexibility exercises
2. Closed kinetic chain quad strengthening – wall sits, mini squats, leg press
3. Stairmaster
4. Elliptical for conditioning
5. Stationary bike – progress time and resistance as tolerated
6. Proprioceptive activities – ball toss, balance beam, mini-tramp balance

## PHASE 3: WEEKS 10-16

### Goals:

1. Full ROM
2. Protect patellofemoral joint
3. Normal running mechanics
4. Strength approximately 70% of uninvolved LE per isokinetic eval if available

### Brace/precautions:

1. Avoid overstressing the graft

### ROM:

1. Maintain full ROM

### Exercises/Strengthening:

1. Continue and progress flexibility and ROM
2. Initiate open kinetic chain knee extensions, progress to eccentrics
3. Progress towards full weight bearing running
4. Begin swimming if desired
5. Cardiovascular/endurance training via stairmaster, elliptical, bike

6. Advance proprioceptive activities

#### PHASE 4: MONTHS 4-6

##### Goals:

1. Symmetric performance of basic and sport specific agility drills
2. Single hop and 3 hop tests 85% of uninvolved lower extremity
3. Quad and hamstring strengthen 85% of uninvolved lower extremity per isokinetic strength test

##### Brace/precautions:

1. None

##### ROM:

2. Maintain full ROM

##### Exercises/strengthening:

1. Progress flexibility and strengthening program
2. Initiate plyometric program as appropriate for athletic goals
3. Agility progression – side steps, crossovers, figure 8 running, cutting, agility ladder, acceleration/deceleration, one and two leg jumping
4. Assessment of running on treadmill

#### PHASE 5: 6+ MONTHS POST-OP

##### Goals:

1. Safe return to athletics/work
2. Maintenance program for strength, endurance, proprioception

##### Exercises/Strengthening:

1. Gradual return to sports participation
2. Recommend LEAP test at 6+ months to guide return to sport/activity

##### Additional Instructions:

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Elisabeth C. Robinson, MD

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