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## Meniscus Repair Rehabilitation (Complex Tears)

### I. PHASE I: MAXIMUM PROTECTION PHASE (1-6 Weeks)

**Goals:** Control inflammation/effusion  
Allow early healing  
Full passive knee extension  
Gradually increase knee flexion  
Independent quadriceps control

#### **Stage 1: Immediate post-surgery days 1 through 10**

- Ice, compression, elevation
- Brace locked at 0 degrees for ambulation and sleeping only
  - Brace may be unlocked while sitting, etc.
- ROM (passive 0-90)
  - \* able to restore extension & hyperextension
- Patellar mobilizations
- Stretch hamstrings and calf
- Strengthening exercises:
  - Quad sets
  - SLR flexion
  - Hip Abd/Adduction
  - Knee extension 60-0 degrees
- Weight bearing: toe touch with two crutches
- Avoid active knee flexion beyond 90 degrees of flexion

#### **Stage 2: Weeks 2 through 6 Early Protection Phase**

- Continue use of ice and compression
  - Brace locked for ambulation and sleeping
  - ROM guidelines
    - Gradually increase **PROM** as tolerated
    - Week 2: 0-100 degrees
    - Week 3: 0-110 degrees
    - Week 4: 0-120 degrees
  - Weight bearing guidelines → Continue to lock brace
    - Weeks 2-4: 25% WB
    - Weeks 5-6: 50% WB
    - After Week 6: FWB as tolerated
  - Continue PROM exercises and stretching
  - Strengthening exercises
    - Multi-angle quad isometrics
    - SLR (all 4 planes)
  - Knee extension 90-0 degrees
  - CKC weight shifts
- \*Avoid twisting, deep squatting, and stooping for ~ 12 weeks  
\*Avoid hamstring strengthening for ~ 8 weeks

**Stage 3: Weeks 6-7**

- Weight bearing: as tolerated
- Discontinue the brace at week 6
- Initiate CKC exercise such as:
  - ½ squat 0-45 degrees
  - Leg press 0-60 degrees
  - Wall squat 0-60 degrees
- Initiate proprioception training
  - Tilt board squats
  - Biodex stability
- Continue CKC exercise
- Initiate hip Abd/Adduction and hip flexion/extension on multi-hip machine

**II. PHASE II: MODERATE PROTECTION PHASE (Weeks 7-12)**

**Goals:** Establish full PROM  
Diminish swelling/inflammation  
Re-establish muscle control  
Promote proper gait pattern

**Weeks 7-10**

- Continue use of ice and compression as needed
- Continue ROM and stretching
  - Week 7: PROM 0-125/130 degrees
- Progress strengthening exercises
  - Leg press 70-0 degrees
  - Knee extension 90-40 degrees
  - Hip Abd/Adduction
  - Wall squats 0-70 degrees
  - Vertical squats 0-60 degrees
  - Lateral step-ups
  - Front step downs
- Balance/proprioception training
  - Biodex stability
  - Squats rocker board
  - Cup walking
- Bicycle (if ROM permits)
- Pool program

\*Avoid twisting, pivoting, running and deep squatting

**Weeks 10-12**

- Continue all exercises listed above
- Initiate “light” hamstring curls
- Initiate toe calf raises

**III. PHASE III: CONTROLLED ACTIVITY PHASE (Weeks 13-18)**

**Goals:** Improve strength and endurance  
Maintain full ROM  
Gradually increase applied stress

**Week 13**

- Continue all strengthening exercises listed above
- Initiate stair stepper
- Toe calf raises
- Progress balance training
- Progress to isotonic strengthening program
- Initiate front lunges
- Initiate pool running (forward and backward)
- Initiate walking program

**Week 16**

- Continue strengthening and stretching program
- Progress walking program
- Initiate running and cutting in pool

**IV. PHASE IV: RETURN TO ACTIVITY PHASE (Months 6-8)**

**Goals:** Improve strength and endurance  
Prepare for unrestricted activities  
Progress to agility and cutting drills

**Criteria to Progress to Phase IV**

- Full non-painful ROM
- No pain or tenderness
- Satisfactory clinical exam
- Satisfactory isokinetic test

**Exercises**

- Continue and progress all strengthening exercises and stretching drills
  - Progress isotonic program
  - Wall squats
  - Leg press
  - Lateral step-ups
  - Knee extensions 90-40 degrees
  - Hamstring curls
  - Hip abduction/adduction
  - Bicycle, stair stepper, elliptical machine
- Deep squatting permitted at 5 ½ months
- Initiate straight line running: 6 months
- Initiate pivoting and cutting: 7 months
- Initiate agility training: 7 months
- Gradually return to sports: 7-8 months