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Meniscus Repair Rehabilitation

I. Phase I: Maximum Protection Phase (Weeks 1-6)

Goals:

- 1) Control inflammation/effusion
- 2) Allow early healing
- 3) Full passive knee extension
- 4) Gradually increase knee flexion
- 5) Independent quadriceps control

A. 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)
- Patellar mobilizations
- Stretch hamstrings and calf
- Strengthening exercises:
 - Quad sets
 - SLR flexion
 - Hip Abd/Adduction
- Weight bearing: Toe touch with two crutches
- Avoid active knee flexion

B. Stage 2: Weeks 2 through 4

- 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)
 - Week 2: 25-50% WB
 - Week 3: 50-75% WB
 - Week 4: FWB as toleration
- 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

*Avoid hamstring strengthening

C. Stage 3: Weeks 5 through 6

- Weight bearing: as tolerated
- 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:

- 1) Establish full PROM
- 2) Diminish swelling/inflammation
- 3) Re-establish muscle control
- 4) Promote proper gait pattern

A. Weeks 7-10

- Continue use of ice and compression as needed
- Continue ROM and stretching
 - Week 7: PROM 0-125/130 degrees
- Continue use of brace for 8 weeks
- Progress strengthening exercises
 - Leg press 0-70 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

B. Weeks 10-12

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

III. Phase II: Controlled Activity Phase (Weeks 13-18)

Goals:

- 1) Improve strength and endurance
- 2) Maintain full ROM
- 3) Gradually increase applied stress

A. 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

B. 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:

- 1) Improve strength and endurance
- 2) Prepare for unrestricted activities
- 3) Progress to agility and cutting drills

Criteria to Progress to Phase IV:

- 1) Full non-painful ROM
- 2) No pain or tenderness
- 3) Satisfactory clinical exam

4) 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 at 6 months
- Initiate pivoting, cutting, and agility training at 7 months
- Gradually return to sports