

REHABILITATION FOLLOWING MENISCAL REPAIR

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NO OPEN CHAIN QUADRICEPS EXERCISES

Our protocol for rehabilitation following meniscal repair is divided into four phases: maximum protection, moderate protection, advanced phase and return to activity phase. These time periods are based primarily on the healing time of peripheral tissues, and the location of the tear.

The key factors in meniscal repairs include:

1. Anatomical site of tear
2. Suture fixation – can lead to failure if too vigorous
3. Location of tear anterior or posterior
4. Other pathology, i.e. PCL, MCL, ACL

NO OPEN CHAIN QUAD EXERCISES!!

Phase I

Maximum protection phase: weeks 1-6

Stage I: Immediate post surgery day 1 – week 3

- Ice, compression, elevation
- Electrical muscle stimulation
- **Brace locked at 0 initially, then unlocked 0-90 degrees flexion when quad activation achieved**
- Range of motion 0-90 x 4 weeks, progress to full as tolerated
- Patellar mobilization
- Scar tissue mobilization
- Passive range of motion
- Exercises:
 - Quadriceps isometrics
 - Hamstring isometrics (posterior horn no hamstring exercises for 6 weeks)
 - WBAT
 - Proprioception training

Stage II: week 4-6

- Weight bearing – full without assisted device
- **Brace discontinued at week 4, if 90 degrees flexion and good quad control**
- Exercises
 - PRE program initiated

- Limited range knee extension (in range less likely to impinge or pull on repair)
- Toe raises
- Mini squats
- Cycling
- Surgical tubing exercises: diagonal patterns
- Flexibility exercises

Phase II

Moderate protection phase: week 6-10

- Goals:
1. Increase strength, power, endurance
 2. Normalize ROM of knee
 3. Prepare patient for advanced exercises

Criteria to progress to phase II

1. Range of motion 0-90
2. No change in pain or effusion
3. Quad control
4. Good MMT

Exercises

- Strength: PRE program continues
- Flexibility exercises as emphasized
- Lateral step-ups
- Mini squats

Phase III

Advanced Phase: 11-16 weeks

- Goals:
1. Improve strength and endurance
 2. Maintain full ROM
 3. Gradually increase applied stress

Exercises

- Continue all strengthening exercises
- Initiate light resisted hamstring curls
- Initiate stair stepper
- Toe calf raises
- Progress balance training
- Progress isotonic strengthening program

Phase IV

Return to Activity Phase: 4-6 Months

- Goals:
1. Improve strength and endurance
 2. Prepare for unrestricted activities

Exercises

- Continue and progress all strengthening and stretching exercises
- Deep squatting permitted at 4 months
- Initiate straight line running: 4 months
- Initiate pivoting and cutting: 5 months
- Initiate agility training: 5 months

- Gradually return to sports
- Endurance Program
 - Swimming if available
 - Cycling
 - Elliptical
 - Stair climber if available
 - Pool running if available
- Coordination Program
 - Balance board
 - Plyometrics