

MENISCAL REPAIR REHABILITATION PROTOCOL

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The following protocol is intended as a guide for post-operative meniscal rehabilitation. This does not represent a fully inclusive list of all interventions that can be used in the rehab process, and the therapist should use their clinical experience/judgment to help guide their patient through their recovery, consulting with the referring physician should questions arise.

Meniscal repair post-op protocol:

General goals:

1. Protect healing repair and enhance remodeling
2. Attain full ROM (extension focus)
3. Restore patellar mobility
4. Reestablish full neuromuscular control/strength
5. Facilitate return to sport

Day 1 post-op: First therapy visit

Medical Care:

- Dressing changes

Exercises:

- Quad sets
- Adductor isometrics
- Ankle pumps
- Heel slides (strap assist); ROM 0-90 degrees, being careful not to force flexion
- Calf stretching
- Gentle hamstring stretching

Modalities

- Modalities for pain/inflammation control (cryotherapy/vasopneumatic compression, TENS)

Ambulation/Brace:

- WB 0-25% with brace locked in full extension
- Sleep with brace locked in full extension

Rehabilitation: Day 2 – Week 6

Goals:

1. Decrease effusion and pain
2. Restore patellar mobility
3. Increase knee ROM (0-90 degrees); emphasize full extension immediately
4. Gradually increase weight bearing/ambulatory function per below guidelines
5. Protect repair and enhance remodeling
6. Facilitate increased muscle tone/control

Medical Care:

- Monitor wound healing

Manual P.T.:

- Knee extension PROM
- Patellar mobilizations

Exercises:

- Self-knee extension stretching:
 - Foam roll under heel +/- weight
 - Prone hangs
 - Patient education
- Heel slides with strap within the limits of 0-90 degrees x 6 weeks
- SLR (flexion, extension, abduction, adduction) with brace locked in full extension if a quad lag exists. Discharge use of brace for leg raises and add weight as quad control improves
- Continue with quad and hip adductor isometrics
- No isolated isotonic hamstring strengthening for 6 weeks
 - Initiate knee flexion AROM against gravity week 2-4 depending on swelling, pain and ROM
- Calf stretching
- Hamstring stretching
- Bike
 - Only allowed on an adjustable bike maintaining 0-90 degree restrictions x 6 weeks

Modalities:

- Modalities for pain/inflammation control (cryotherapy/vasopneumatic compression, TENS)

Ambulation:

- Week 2: 0-25% WB with brace locked in 0-degree extension
- Week 3-4: 25-50% WB with brace locked in 0-degree extension
- Week 5-6: 50-75% WB with brace locked in 0-degree extension
- Sleep with brace based on therapist discretion
- Emphasize normal gait pattern

Rehabilitation: Weeks 7 – 12

Goals:

1. Resolution of pain with ADLs
2. Resolution of edema
3. Normalization of knee ROM
4. Normal gait pattern
5. Develop strength and power in lower extremities (5/5 MMT)
6. Advance proprioceptive and neuromuscular skills
7. Increase overall conditioning/endurance
8. Closed chain focus for rehabilitation

Manual P.T:

- Continue with patellar mobilization and PROM PRN

Exercises:

- Continue with self-knee extension ROM exercises
- Progress knee flexion ROM to full
- Continue to progress the strengthening exercises from weeks 0-6 as tolerated
- Stationary bike to full ROM with gradually increasing time and intensity
- Gait training
- Progressive closed chain strengthening-leg press, wall slides, single leg deadlifts
- Progressive isolated hamstring strengthening starting at week 6
- Initiate bilateral proprioceptive exercises – progressing to SL proprioceptive exercises

Ambulation:

- Progress gradually to full weight-bearing during weeks 7-8 post-op with brace opened gradually

- Discharge brace with ambulation once gait pattern is normalized
- Reciprocal pattern up and down stairs

Rehabilitation: Weeks 13 – 14

Goals:

1. Maximize strength and LE power
2. Normal neuromuscular control
3. Progress to sport specific/plyometric training
4. Return to sport

Jogging:

- Initiate at 4 months post-op if ROM and flexibility are WNL's, strength is adequate and pain allows

Exercises:

- Continued strengthening program
- Continued proprioceptive program
- Initiate agilities/plyometrics at 5 months post-op
 - Start with 2-legged activities progressing to single leg activities
 - Forward/back to lateral motions (shuffle, carioca, hopping)
 - Start with 25-50% intensity and progress gradually
- Deceleration activities at 5 months post-op
 - Plant with backpedal
- Cutting progression (closer to week 24)
 - Gradually increase speed and angle

Return to sport in 9 months + per physician's orders

- Functional testing
- Full ROM
- (-) Laxity
- (-) Pain
- (-) Effusion