



INOVA[®]

Sports Medicine

Dr. Robin West
Dr. Robert Najarian
Dr. Brandon Bryant
Dr. Jeffrey Giuliani

8100 Innovation Park Drive Suite 110, Fairfax, Virginia 22031
1005 N Glebe Road, Suite 410, Arlington, Virginia 22201
22505 Landmark Court, Suite 235, Ashburn, Virginia 20148

Physical Therapy Protocol Following Meniscus Transplant

Weight Bearing Status – AS TOLERATED in brace locked in extension with crutches x 6 weeks
May unlock brace for ambulation but continue to use two crutches from 6-8 weeks

Post-Op Weeks 0-8:

- Goals:
1. Minimize swelling and pain
 2. Full active extension and 90⁰ of flexion
 3. Achieve quadriceps control
- Brace:
1. Locked in extension for 6 weeks for ambulation and sleeping
 2. May unlock at 6 weeks for ambulation and may remove for sleeping
- Exercises:
1. SLRs in all planes in all planes with brace locked in extension
 2. Heel slides to < 90⁰ of flexion, calf pumps, quad sets
 3. E-stim
 4. Patellar mobs
 5. Balancing activities on stable platform with brace locked in extension, eye open and closed
 6. Begin pool walking once incision is healed at 4 weeks

Criteria before Phase 2: Good quad set, SLR without extension lag, ROM 0-90⁰

Post-Op Weeks 8-12:

- Goals:
1. Good quad set, SLR without extension lag
 2. Flexion to 90⁰
 3. Full extension
 4. FWB with brace unlocked; discontinue brace when normal gait pattern/ good quad control
- Exercises:
1. Wall slides, then progress to mini-squats (0-45⁰)
 2. Stationary bike (high seat, low tension)
 3. Prone leg hangs
 4. Closed chain exercise (leg press: 0-45⁰)
 5. Pool walking/jogging
 6. Toe raises
 7. Hamstring and gastroc/soleus stretches
 8. Stairmaster (small steps initially)
 9. Step-up (start at 2" and progress to 8")
 10. Proprioception with:
 - *Mini-trampoline standing
 - *Unstable platform (BAPS) with eyes open and closed
 - *Standing ball throwing and catching

Criteria before Phase 3: Normal gait, ROM 0-100⁰, sufficient strength & proprioception to initiate functional activities

Post-Op Months 3-6:

Goals:

1. Improve confidence in the knee
2. Progress with strength, power and proprioception

Exercises:

1. Continue with flexibility exercises
2. Progress closed chain strengthening (two leg squats to <90⁰, leg press 0-60⁰)
3. Hamstring curls 0-60⁰
4. Stairmaster, elliptical, cross-country ski machine
5. Functional training:
 - *Pool running
 - *Swimming (AVOID FROG KICK)
 - *Plyometrics:
 - Stair jogging
 - Box jumps (6-12" heights)
 - *Proprioception:
 - Mini-trampoline bouncing
 - Lateral slide board
 - Ball throwing and catching on unstable surface

Criteria before Phase 4: No patellofemoral pain, sufficient strength & proprioception to progress to recreational activities

Post-Op Months 6-9

Goals:

1. Return to unrestricted activity by 8-9 months

Exercises:

1. Progress with flexibility and strengthening program
2. Walk/jog progression
3. Advance heights with plyometric conditioning
4. Sport specific drills (start at 25% on speed and advance as tolerated)

Criteria for release to sport(s):

1. Full painless ROM
2. 90% hamstring and quadriceps strength of contralateral side
3. No patellofemoral symptoms
4. No reactive effusion or instability with sport-specific drills