

Post-operative Arthroscopic Partial Meniscectomy Physical Therapy Rehabilitation Protocol

Each phase should include:

Physical Therapy (PT) intervention as indicated by treating Physical Therapist's plan of care within guidelines of this study protocol.

Home Exercise Program (HEP) as indicated

12-15 repetitions with 1-2 sets of each exercise

Perform ≥ 8 exercises within each phase

Protocol to include land based exercises only

Phase I: Acute Phase (1-10 days post-op)

Goals of Phase I

- Diminish inflammation and swelling
- Restore A/PROM
- Reestablish quadriceps muscle activity

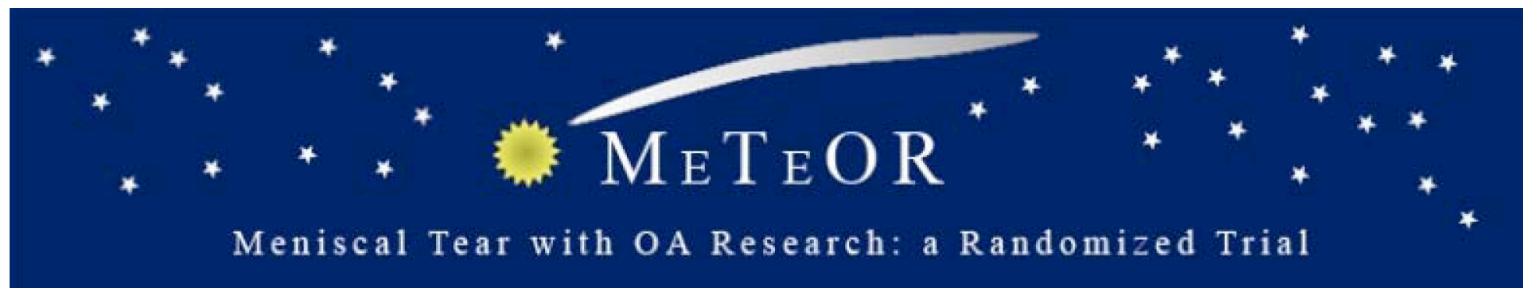
Intervention

- Cryotherapy (examples include Cryocuff™, cold packs, Game Ready™, ice, etc)
- Therapeutic Exercises

(Initially exercises are done without weights; when patient is able to perform 2 sets of an exercise, exercises are progressed to repetitions with weights as indicated)

- Open Chain
 - Quadriceps sets
 - Straight Leg Raise (SLR), progress to PRE
 - Hip adduction and abduction and extension, progress to PRE
 - Knee extension-progress to knee extension 90-40 degrees (PRE)
 - AA/PROM stretching, emphasizing full knee flexion and extension to tolerance
 - Stretching (hamstrings, gastrocsoleus, ITB and quadriceps)
- Closed Chain
 - Terminal knee extension using elastic band as resistance
 - Standing hamstring curls, progress to PRE
 - Toe raises
 - Modified squats (wall squats, ½ squats)
 - Stationary bicycle-no resistance
- Proprioceptive drills
- Gait Training: weight bearing as tolerated initially with crutches progression to no device, full weight bearing
- Electrical Stimulation/Biofeedback
 - Muscle re-education to quadriceps during quadriceps exercises if unable to perform quad set





Criteria for Progression to Phase II

Patient must meet 3 of the 4 criteria.

- 0° extension to $\geq 115^\circ$ A/PROM (goniometer)
- Moderate to minimal effusion
- Mild to moderate knee pain ($\leq 4/10$ pain on VAS)
- Muscle Strength $\geq 3/5$ MMT quads and hams

Phase II: Subacute Phase (10 days-4 weeks post-op)

Goals of Phase II

- Restore and improve muscular strength and endurance.
- Reestablish full pain free AROM.
- Gradual return to functional activities.
- Minimize gait deviations

Intervention

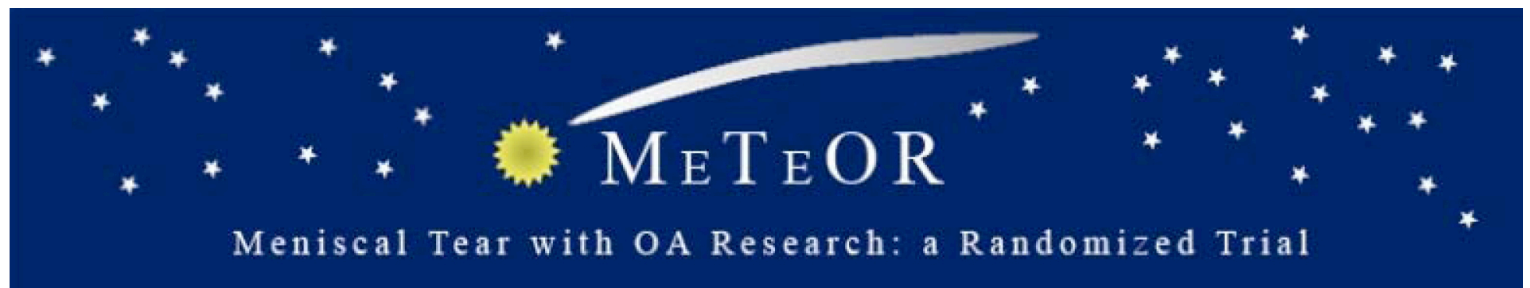
- Cryotherapy (examples include Cryocuff™, cold packs, Game Ready™, ice, etc)
- Therapeutic Exercises
 - Open Chain Exercises
 - Stretching (hamstrings, gastrocsoleus, ITB and quadriceps)
 - Passive/Active-assisted/Active ROM knee flexion (if necessary)
 - SLR (PRE)
 - Knee extension 90-40 degrees (PRE)
 - Hamstring curls (PRE)
 - Hip abduction and adduction and extension (PRE)
 - Closed Chain Exercises
 - Bicycle, treadmill or elliptical for motion, strength and endurance
 - Terminal knee extension using elastic band as resistance
 - Modified squats (wall squats, $\frac{1}{2}$ squats, unsupported squats)
 - Step-ups/downs progression (forward/lateral with increasing height)
 - Leg press, Total Gym™, etc
 - Toe raises
 - Proprioceptive and agility training

Criteria for Progression to Phase III

Patient must meet 4 of the 5 criteria.

- 0° extension to $\geq 125^\circ$ A/PROM
- Normal Joint Play
- Minimal effusion
- $\leq 2/10$ pain on VAS
- Muscle Strength 5/5 MMT quads and hams





Phase III: Advanced Activity Phase (4-7 weeks post-op)

Goals for Phase III

- Enhance muscular strength and endurance.
- Maintain full ROM.
- Return to sport/functional activities

Intervention

- Therapeutic Exercises
 - Emphasis on closed-kinetic chain exercises (leg press, Total Gym™, modified squats, step-ups/downs)
 - Closed Chain terminal knee extension using elastic band as resistance
 - Continue PRE exercise program
 - Stretches (hamstrings, gastrocsoleus, ITB and quadriceps).
 - Stationary bicycle with resistance, treadmill, elliptical
 - Proprioceptive and agility training (dynamic single leg stance, plyometrics, running, carioca, figure 8s)

