



Department of Rehabilitation Services

Physical Therapy

This protocol has been modified from Brotzman & Wilk, which has been published in Brotzman SB, Wilk KE, *Clinical Orthopaedic Rehabilitation*. Philadelphia, PA: Mosby Inc; 2003:315-319. The Department of Rehabilitation Services at Brigham & Women's Hospital has accepted this protocol as our standard protocol for the management of patient's s/p arthroscopic partial medial or lateral meniscectomy.

Arthroscopic partial medial or lateral meniscectomy, loose body removal or debridement protocol:

The intent of this protocol is to provide the clinician with a guideline of the post-operative rehabilitation course of a patient that has undergone a partial meniscectomy, loose body removal or debridement. It is by no means intended to be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam/findings, individual progress, and/or the presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient they should consult with the referring Surgeon.

Rehabilitation after meniscectomy may progress aggressively because there is no anatomic structure that requires protection.

Progression to the next phase is based on clinical criteria and meeting the established goals for each phase.

Phase I – Acute Phase:

Goals:

- Diminish pain, edema¹
- Restore knee range of motion (goal 0-115, minimum of 0 degrees extension to 90 degrees of flexion to progress to phase II)²
- Reestablish quadriceps muscle activity/re-education (goal of no quad lag during SLR)¹
- Educate the patient regarding Weight bearing as tolerated, use of crutches, icing, elevation and the rehabilitation process¹

Weight bearing:

- Weight bearing as tolerated. Use two crutches initially progressing to weaning crutches as swelling and quadriceps status dictates.

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Modalities:

- Cryotherapy for 15 min 4 times a day¹
- Electrical stimulation to quadriceps for functional retraining as appropriate
- Electrical stimulation for edema control- high volt galvanic or interferential stimulation as needed³

Therapeutic Exercise:

- Quadriceps sets
- SLR
- Hip adduction, abduction and extension
- Ankle pumps
- Gluteal sets
- Heel slides
- ½ squats
- Active-assisted ROM stretching, emphasizing full knee extension (flexion to tolerance)
- Hamstring and gastroc/ soleus and quadriceps stretches
- Use of compression wrap or brace
- Bicycle for ROM when patient has sufficient knee ROM. May begin partial revolutions to recover motion if the patient does not have sufficient knee flexion

Phase II: Internal Phase :**Goals:**

- Restore and improve muscular strength and endurance
- Reestablish full pain free ROM
- Gradual return to functional activities
- Restore normal gait without an assistive device
- Improve balance and proprioception

Weight bearing status:

Patients may progress to full weight bearing as tolerated without antalgia. Patients may require one crutch or cane to normalize gait before ambulating without assistive device.

Therapeutic exercise:

- Continue all exercises as needed from phase one
- Toe raises- calf raises
- Hamstring curls
- Continue bike for motion and endurance
- Cardio equipment- stairmaster, elliptical trainer, treadmill and bike as above.
- Lunges- lateral and front
- Leg press
- Lateral step ups, step downs, and front step ups

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- Knee extension 90-40 degrees
- Closed kinetic chain exercise terminal knee extension
- Four way hip exercise in standing
- Proprioceptive and balance training
- Stretching exercises- as above, may need to add ITB and/or hip flexor stretches

Phase III – Advanced activity phase:

Goals:

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

Therapeutic Exercise:

- Continue to emphasize closed-kinetic chain exercises
- May begin plyometrics/ vertical jumping
- Begin running program and agility drills (walk-jog) progression, forward and backward running, cutting, figure of eight and carioca program
- Sport specific drills

Criteria for discharge from skilled therapy:

- 1) Non-antalgic gait
- 2) Pain free /full ROM
- 3) LE strength at least 4+/5
- 4) Independent with home program
- 5) Normal age appropriate balance and proprioception
- 6) Resolved palpable edema

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References

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2. Herrlin S, Hallander M, Wange P, Weidenhielm L, Werner S. Arthroscopic or conservative treatment of degenerative medial meniscal tears: a prospective randomised trial. *Knee Surg Sports Traumatol Arthrosc.* 2007;15(4):393-401.
3. Jarit GJ, Mohr KJ, Waller R, Glousman RE. The effects of home interferential therapy on post-operative pain, edema, and range of motion of the knee. *Clin J Sport Med.* 2003;13(1):16-20.