

Meniscal Repair

Physical Therapy Protocol

General Guidelines: The included protocol is intended to be a guideline for the therapist in assisting the patient having undergone a meniscal repair. The overall speed of progression is determined by the therapist upon achieving the designated goals. Determined length of therapy is 2-3 times weekly for 4-6 weeks with emphasis on a home exercise program. Modalities may be used as needed.

Rehabilitation Protocol

Phase 1: 0-2 weeks postop

Goals: Control pain, diminish swelling, begin regaining knee range of motion 0-90° with focus on full extension, patella mobility, restore normal gait, protect the meniscal repair

Weight bearing: 50% weight bearing with crutches for assistance for 2 weeks.

Brace: hinged knee brace locked in extension for sleep. May unlock brace 0-90° during the day and for therapy/home exercises.

Exercises:

- Quad Isometric Contractions
- Patella mobilization
- Ankle pumps
- Straight leg raises to 45° with brace locked in extension
- Hip adduction, abduction, extension
- Knee Extension: Heel prop, Prone leg hang
- Knee Flexion: assisted by contralateral leg, heel slides
- Stationary cycling without resistance

Phase 2: 2-6 weeks postop

Goals: Control pain, maintain full knee extension and flexion to 90°, develop muscular control, achieve normal gait, protect the meniscal repair

Weight bearing: as tolerated. Progression to wean off crutches

Brace: May unlock at all times with settings 0-90° once able to achieve full extension.

Exercises:

- Continue Phase 1
- Heel/toe raises
- Mini squats to 45°
- Wall slides
- Prone/standing hamstring curls
- Front/side lunges
- Front/lateral step-ups
- Simple leg press
- Proprioception: single leg balance, balance board, BOSU trainer
- Stationary cycling—increase resistance as tolerated
- Aquatic exercise: pool walking, straight-leg flutter kicks, water bicycle
- Cardiovascular: elliptical, stationary bike, treadmill walking (no jogging/running).
- Avoid open chain knee extension/curls machine

Phase 3: 6-12 weeks postop

Goals: Regain full range of motion, enhance leg muscular strength and endurance, improve proprioception and neuromuscular control, return to functional activities

Weight bearing: as tolerated

Brace: May wean out of brace as tolerated. May consider neoprene sleeve to assist with swelling if desired.

Exercises:

- Continue Phase 2/lower extremity strengthening
- Continue cardiovascular training
- Introduce stair climber
- Improve proprioception/neuromuscular control
- Pool program if desired

Phase 4: 3-4 months postop

Goals: Maintain full range of motion, enhanced quad/hamstring strength 80% of contralateral leg, improve lower limb endurance, achieve normal running gait

Exercises:

- Continue Phase 3 exercises
- Continue daily flexibility/stretching

- May initiate eccentric knee extensions
- Initiate running progression protocol: light jogging → jogging → running on level track surface/treadmill → running on level pavement at 4 months
- Avoid hiking/running on uneven surfaces

Phase 5: 4-6 months postop

Goals: Maintain full pain-free range of motion, strength > 80% of contralateral leg, normal running gait, sufficient proprioception/neuromuscular control to begin agility exercises, return to skill activities and sport participation

Exercises:

- Straight-ahead running on level surfaces (no trail running until 6 months)
- Agility drills: side steps, figure of eight drills, stair running, shuttle running, ladder drills, straight ahead acceleration/deceleration
- Begin plyometric drills, two-leg and single-leg jumping. May introduce sport-specific drills
- At 5-6 months: Safe return to athletic participation
 - Full pain-free range of motion, quad/hamstring strength >80% of contralateral leg, satisfactory single-leg hop equivalent to contralateral side
 - Physician clearance examination prior to return to full sport participation
- Maintenance program for continued knee strength and endurance