

## Meniscus Repair

**Precautions:** WB status varies according to surgical technique. If it is not specified, check with physician. Goals: Control inflammation/effusion, allow early healing, full passive extension, and independent quad control

### Phase I (1 – 5 days post-op)

- Modalities: prn for pain and inflammation (ice/IFC)
- Brace/Gait:
  - Drs. Whitehurst and Ferry: NWB or TTWB unless otherwise prescribed. Brace unlocked 0-90 degrees for 4 weeks
  - Drs. Trenhaile and VanThiel: WBAT. Brace locked in extension for 6 weeks during WB
- ROM: 0-90 degrees by 4 weeks. Do NOT force ROM
- Exercises:
  - Quad sets
  - Hamstring, gastroc, and soleus stretches- NWB
  - Hip abd/add isometrics
  - Avoid active knee flexion (due to semimembranosus insertion to posterior medial meniscus). ONLY passive heel slides

### Phase II (5 days – 4 weeks post-op)

- Wound care: Monitor wound site and begin scar management techniques when incision is closed
- Modalities: prn
- Brace/Gait:
  - Drs. Whitehurst and Ferry: NWB or TTWB unless otherwise prescribed. Brace unlocked 0-90 degrees for 4 weeks
  - Drs. Trenhaile and VanThiel: WBAT. Brace locked in extension for 6 weeks during WB
- ROM: 0-90 degrees by 4 weeks. Do NOT force ROM
- Strengthening: Continue Phase I exercises
  - Active heel slides, progressing to prone knee flexion, or standing knee flexion without resistance (caution if posterior medial meniscus repair)
  - SLR x4 directions, beginning in supine, with brace if needed. Brace on when standing
  - SAQ including multi-angle quad sets
  - Ankle resistance with theraband
  - Drs. Trenhaile and VanThiel: Closed chain weight-shifting with brace locked in extension

### Phase III (4 weeks – 10 weeks post-op)

- Brace/Gait:
  - Drs. Whitehurst and Ferry
    - At 4 weeks post-op, progress to FWB with brace open 0-120 degrees
    - At 6 weeks, wean out of brace
  - Drs. Trenhaile and VanThiel
    - Until 6 weeks post-op, WBAT with brace locked in extension
    - At 6 weeks post-op, gradually wean from brace
- ROM: At 4-6 weeks post-op, progress to 0-120 degrees. Do NOT force ROM
- Strengthening: Adhere to WB status (as listed above)
  - Cardiovascular exercise without resistance
    - Stationary cycle or seated recumbent stepper
    - May begin treadmill ambulation when patient is able to demonstrate normal gait pattern
  - Closed chain exercises: Limited knee ROM 0-60 degrees. Keep hip and knee in neutral position
    - Mini squats, wall sits, and leg press
    - Heel raises
    - Step ups
    - Partial lunges
    - Hip and Core strengthening, including 4way hip with resistance
    - Uniplanar balance board
    - Proprioceptive training and single leg balance
    - TKE with theraband
    - Hydrotherapy

#### **Phase IV (10+ weeks post-op)**

- Precaution: Post-activity soreness should resolve within 24 hours
- Gait: Independent ambulation without brace or assistive device
- ROM: Full AROM
- Strengthening:
  - Closed chain exercises: Progress squats, lunges, and leg press 0-90 degrees
  - Progress core and hip strengthening/overall endurance training
  - Sport specific training and agility activities
    - Begin with low velocity, single plane activities and progress to higher velocity, multi-plane activities
    - Strength, balance, and control drills related to sport specific movements
    - Treadmill- begin running per physician
- Testing: <25% deficit for non-athlete and <20% deficit for athlete



Adapted From:

- 1) Brotzman SB, Wilk KE. Clinical Orthopedic Rehabilitation 2<sup>nd</sup> Edition. Philadelphia: Mosby; 2003.
- 2) Wilk KE, Reinhold MM, Andrews JR. Meniscus Repair Rehabilitation (Complex Tears). Winchester, MA: Advanced Continuing Education Institute, 2004.
- 3) Northwestern Sports Medicine, Dr. Michael Terry.
- 4) Rehabilitation Guidelines for Meniscal Repair; University of Wisconsin Sports Medicine, 2010.