

## Meniscal Repair

### Precautions

- Weight bearing status may vary according to surgical technique. If it is not specified on the prescription, check with surgeon.
- Goals: Control inflammation/effusion, allow early healing, full passive extension, independent quad control

### Phase I (1 – 5 days post-op)

- Modalities: prn for pain and inflammation (ice, IFC)
- Gait and Brace:
  - NWB unless otherwise prescribed. Brace unlocked 0-90 degrees x 4 weeks.
- ROM: 0-90 by 4 weeks and progress to 120 by 6 weeks. Do not force ROM.
- Strengthening:
  - Quad sets
  - Hamstring, gastroc, and soleus stretches NWB
  - Hip abd/add isometrics
  - Avoid active knee flexion (semimembranosus insertion on posterior medial meniscus), heel slides completed passively

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

- Wound care: Monitor wound site and begin scar management techniques when incision is closed
- Modalities: continue prn
- Gait and Brace: same as Phase I. Brace may be removed for all NWB exercises.
- ROM: same as Phase I.
- Strengthening: Continue phase I exercises. Progress to include:
  - Active heel slides progressing to prone knee flexion or standing knee flexion without resistance. (Caution if posterior medial meniscus repair).
  - SLR x 4 directions beginning in supine with brace if needed. Brace on if standing.
  - CKC weight shifting with brace locked in extension (Dr. Trenhaile only)
  - SAQ including multi-angle quad isometrics
  - Ankle resistance with Theraband

### Phase III (4 – 10 weeks post-op)

- Gait and Brace:
  - At 4 weeks, progress to FWB with brace set at 0-120 degrees. Wean out of brace after 6 weeks.
- ROM: Progress to 0 – 120 degrees by 6 weeks. Do not force ROM.
- Strengthening: Depending on WB status per MD (see above)
  - Cardiovascular exercise without resistance: Stationary cycle and/or seated stepper. May begin Treadmill ambulation when patient is able to demonstrate normal gait pattern.
  - Closed-chain exercises: Caution: Limit knee ROM 0-60 degrees. Keep knee & Lower Extremity in neutral hip position.
    - Mini squats
    - Partial wall sits
    - Leg press
    - Heel raises
    - Step Up exercises

- Partial lunges
- 4 way hip with resistance
- Tilt board balance
- Proprioceptive training and single leg balance
- Terminal knee extension with band
- Hip and core strengthening
- Pool program

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

- Gait: Independent ambulation without knee brace or assistive device.
- ROM: Full AROM.
- Strengthening: Progress knee ROM 0-90 degrees for strengthening activities.
  - Closed Chain Exercises: Progress squats and leg press 0 – 90 degrees
  - Progress Core, hip and overall endurance training
  - Sport specific Training/agility activities:
    - begin with low velocity, single plane activities and progress to higher velocity, multiplane activities.
    - strength, balance and control drills related to sport specific movements
  - Treadmill: Begin running, per M.D.
- Testing: final functional tests less than 25% deficit for non-athletes, less than 20% deficit for athletes

#### Adapted from:

- 1) Brotzman SB, Wilk KE. Clinical Orthopedic Rehabilitation Second Edition. Philadelphia: Mosby; 2003
- 2) Wilk KE, Reinold 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.