

# VCU Sports Medicine Clinic

## Meniscal repair protocol

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The following is a patient guide to rehabilitation after a meniscal repair procedure.

Depending on the location of the repair, postoperative weight-bearing status as well as the intensity and time frame of initiating functional activities will vary. **Please follow individual physician guidelines on the referral.**

The physical therapist and patient must constantly be aware of changes in condition, including signs and symptoms of joint irritation/pain, tendonitis and effusion. The patient's home exercise program should be monitored and emphasized.

Returning to intense activities such as impact loading, jogging, deep knee flexion, or pivoting and shifting too early postoperatively may increase the overall chance of a repeat meniscal tear. Symptoms of pain, swelling or instability should be closely monitored.

### Phase I (weeks 0-4)

#### Goals

1. Control pain and effusion
2. Achieve adequate quad/vastus medialis oblique (VMO) contraction, no extensor lag
3. Independent home exercise program

#### Restrictions

1. Weight bearing: determined by physician referral
2. Brace: may remove to perform non-weight bearing exercises (no flexion past 90 degrees); brace locked in full extension when weight bearing if released by doctor
3. Range of motion: no knee flexion past 90 degrees
  - Active and passive 0-90 degree knee flexion
  - Patellar mobilizations
  - Ankle pumps
  - Gastrocnemius/soleus stretch
  - Hamstrings/iliotibial band stretch
  - Prone hangs to facilitate extension, heel slides to 90 degrees for flexion

#### Strength

- No loading past 60 degrees for six weeks
- Quad sets with electrical stimulation
- Straight leg raises in four planes, supine/side-lying hip circles
- Short arc quads (SAQ), prone knee extensions/total knee extensions
- Multi-hip machine in four planes
- Hip flexion (seated)
- Multi-angle isometrics 0-60 degrees
- If released for weight bearing as tolerated, may add as appropriate: heel raises, weight shifting, line walking, single-leg balance
- For advanced patients/athletes: upper body ergometer (UBE), upper extremity weightlifting, core strengthening may be done if it does not load lower extremities

#### Modalities

Electrical stimulation and cryotherapy as needed

## Phase II (weeks 4-6)

### Goals

1. Range of motion 0-120 degrees
2. Adequate quad/VMO contraction
3. Control pain and effusion
4. Partial weight bearing to full weight bearing with quad control; brace as referred by physician

### Exercises

1. Active and passive range of motion 0-120 patellar mobilizations
2. Continue stretches as previous
3. Scar massage

### Strength

*No loading past 60 for six weeks*

- Continue previous exercises as indicated
- Monster walk
- Heel-toe walking, cone stepping
- Leg press, total gym (0-60) or reformer
- Wall squats
- Lateral step down
- Stationary bike (as motion available – do not force)

### Balance training

- Add weight bearing exercises above if non-weight bearing until now
- Cone walking

### Modalities

- Cryotherapy as needed

## Phase III (weeks 6-12)

### Goals

1. Range of motion 0-135 degrees
2. Full weight bearing
3. Be aware of changes in condition (such as pain and effusion) and modify program as indicated
4. Increase lower extremity strength and endurance
5. Enhance proprioception, balance and coordination
6. Complete readiness for sport-specific activity

### Exercises

1. Full range of motion
2. Stretching as previous

### Strength

*No loading past 90 for 12 weeks*

- Continue previous exercise as indicated
- Monster walk
- Mini-squats/squats
- Hamstring curl (0-90)
- Leg press
- Lunges – knee not to migrate over toe
- Mini-squat with upper extremity or lower extremity reach (rock around the clock)
- Prepare for hopping program (no actual impact loading until released by doctor)
- Stepper, Nordic track, treadmill

#### **Balance training**

- Single leg balance with plyotoss or other challenge
- Sports cord agility work
- Wobble board work

#### **Modalities**

- As needed

#### **Phase IV (weeks 12+)**

##### **Goals**

1. Enhance neuromuscular control
2. Perform selected sport-specific activity and release per doctor to unrestricted sporting activity
3. Achieve maximal strength and endurance
4. Continue previous stretching and strengthening as indicated

##### **Functional training**

1. Initiate light plyometric program (as released by doctor for impact loading)
2. Box hoops, level, double-leg
3. Sport-specific drills

##### **Running program**

- Water walking
- Swimming (kicking)
- Backward run
- Eventual return to jogging if patient is tolerating plyometrics

##### **Cutting program**

- Lateral shuffle
- Carioca, figure 8s.

##### **Modalities**

- As needed

Advanced weight training and sport-specific drills are advised to maintain a higher level of competition.