

**Meniscal Transplantation  
 Rehab Protocol  
 Dr. Jon Henry**

**Phase I – Maximum Protection (Weeks 0 to 6):**

**Goals**

- Emphasis on full knee extension
- ROM to 90 degrees of knee flexion
- Control postoperative pain and swelling
- Regain quadriceps control

**Precautions**

- Avoid active knee flexion
- Avoid ambulation without brace locked at 0 degrees for first 4 weeks

**Weeks 0 to 4:**

- Begin passive knee range of motion to 90° of knee flexion and strong emphasis on full knee extension
- **Toe Touch weight Bearing for 4 weeks**
- Quad sets and prone hangs for knee extension
- Patella mobility
- SLR's (all planes)
- Multi-plane open kinetic chain straight leg raising
- Gait training

**Weeks 4 to 6:**

- **Progress PWB to WBAT weeks 4-6**
- Aquatic therapy may begin
- Standard ergometry (<90°)
- Multi-hip machine
- **Leg press (bilateral 0-60°)**

<b>MD Appointments:</b>
2 weeks
6 week
12 weeks
6 months

**Phase II – Progressive Stretching and Early Strengthening (Week 6 to 14):**

**Goals:**

- Restore full ROM
- Restore normal gait
- Decrease pain and increase NMS control with ADL's and stairs

**Precautions:**

- Avoid pain with therapeutic exercise and ADL's

- Avoid Running and sport activities

**Treatment Strategies:**

**Weeks 6 to14:**

- D/C crutches with restoration of normal gait and Quad control
- AAROM exercises
- SLR's with weight
- Neuromuscular balance training (bilateral to unilateral)
- Standard ergometry (>90°)
- Leg press (bilateral/eccentric/unilateral) 9 weeks?
- Squats (0-45°)
- Forward step-up program
- Retro-Treadmill ambulation
- Hamstring curls
- Elliptical machine

**Phase III – Advanced Strengthening and Proprioception Phase (Weeks 14 to 22):**

**Goals:**

- Return to normal Strength and ROM
- Demonstrate 8 inch step down with proper knee control
- Isokinetic test >75% limb symmetry

**Precautions:**

- Avoid pain with therapeutic exercise
- Avoid sport activity until MD clearance

**Treatment Strategies:**

- Squats (<60°)
- Forward step down program
- Progress to gym program

**Phase IV – Strengthening and Plyometric Phase (Weeks 22 to 30):**

**Goals:**

- Pain-free running
- Isokinetic testing >85 % limb symmetry
- Independent gym program and HEP

**Treatment Strategies:**

- Squats progression (>90°)
- Retro treadmill running and forward treadmill running at 6 months



- Advance proprioception drills
- Sports test for return to play
- Revised 10/2010