

Shawn Hennigan, MD  
Jon Henry, MD  
Robert Limoni, MD

1160 Kepler Drive  
P.O. Box 8970  
Green Bay, WI 54308-8970  
(920) 288-5555  
Fax (920) 288-5550  
Toll Free (877) 884-8796

Michael Schnaubelt, MD  
Harold Schock, MD

## **Microfracture – Trochlear Groove/Patella Post-Operative Protocol**

### **Phase I – Maximum Protection (0 to 1 week):**

- ⌚ Ice and modalities to reduce pain and inflammation
- ⌚ **Brace 0° to 20° for 6 weeks**
- ⌚ Use crutches (approx. 2 weeks); wean off as gait normalizes and inflammation subsides
- ⌚ Elevate the knee above the heart for the first 3 to 5 days
- ⌚ Initiate patella mobility drills
- ⌚ CPM x 6 weeks
- ⌚ Begin full passive/active knee range of motion exercises
- ⌚ Quadriceps setting focusing on VMO restoration
- ⌚ Multi-plane open kinetic chain straight leg raising
- ⌚ Gait training

### **Phase II – Progressive Stretching and Early Strengthening (Weeks 1 to 6):**

- ⌚ Maintain program as outlined in week 0 to 1
- ⌚ Continue with modalities to control inflammation
- ⌚ Initiate global lower extremity stretching program
- ⌚ Core strengthening program
- ⌚ Begin stationary bike and pool exercise program (when incisions healed)
- ⌚ Implement reintegration exercises emphasizing core stability
- ⌚ multi-plane ankle strengthening

### **Phase III – Strengthening and Proprioceptive Phase (Weeks 6 to 12):**

- ⌚ Continue with Phase II exercises as indicated
- ⌚ Opening Brace As Follows:
  - 0° to 45° for 3 days
  - 0° to 60° for 3 days
  - 0° to 90° for 3 days
- Wean out of brace by week 8 – 9
- ⌚ Normalize Gait
- ⌚ Advance core strengthening program
- ⌚ Advance time and intensity on cardiovascular bike program
- ⌚ May begin treadmill or elliptical trainer - no running
- ⌚ Initiate closed kinetic chain exercises progressing from bilateral to unilateral

### **Phase IV – Advanced Strengthening (Weeks 12 to 20):**

- ⌚ Gym-strengthening program avoiding PF provocative exercise (lunges, leg extensions...)
- ⌚ Biking outside, walking and swimming