



ROSENBERG COOLEY METCALF  
THE ORTHOPEDIC CLINIC AT PARK CITY

**Charles C. Lind, 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

**Phase V – Return to Sport Functional Program (Weeks 20 to 24):**

**\*The following progression is designed for athletes desiring to return to impact/running sports. Patients not returning to impact activity are advised to focus primarily on non-impact cardio-vascular exercise.**

- Pool running with progression to dry land
- Linear running drills with gradual progression to lateral and rotational as tolerated
- Continue with lower extremity strengthening, cardiovascular training, core and flexibility work
- Plyometric activity (increasing as tolerated)
- Sports test for return to play **6 to 9 months**