

Mircofracture Procedure
 Rehabilitation Protocol
 Dr. Henry

Phase I – Maximum Protection (Weeks 0 to 4):

Goals

- Protect healing surfaces from shear forces
- ROM 0 to 120 degrees
- Control postoperative pain and swelling
- Regain quadriceps control

Weight-Bearing Precautions Does brace need to be locked

- Femoral Condyle lesions
 - NWB (0-2 weeks)
 - TTWB (week 2-3)
 - Partial 50% WB (week 3-4)
- Patellafemoral Lesions (Brace locked in extension at all times)
 - TTWB (0-2 weeks)
 - Partial 50% (week 2-3)
 - Partial 75% (week 3-4)

Treatment Strategies:

- Initiate CPM 6-8 hours per day
- Quad sets
- Patella mobility
- SLR's (all planes)
- Bike ergometry
- Progressive hip resisted exercises
- Aquatic therapy (after Wound healing)

MD Appointments
2 weeks
6 week
12 weeks
6 months

Phase II – Progressive Stretching and Early Strengthening (Week 4 to 10):

Goals:

- Restore full ROM
- Restore normal gait
- Restore normal patellar mobility

Weight-Bearing Precautions:

- Femoral Condyle Lesions:
 - Partial 75% (week 4-6)
 - WBAT (week 6)
- Patellafemoral Lesions
 - WBAT (week 4)

Treatment Strategies:

- D/C crutches with restoration of normal gait and Quad control
- Leg press 60 to 0 degrees, 90 to 0 by week 8 (not exceeding WB precautions)
- SLR's with resistance
- Neuromuscular balance training (bilateral)
- Retrograde treadmill ambulation
- Mini Squats (0-45°) week 6
- Forward step-up program

Phase III – Advanced Strengthening and Proprioception Phase (Weeks 10 to 16):

Goals:

- Return to normal ADL's
- Demonstrate 8 inch step down with proper knee control
- Isokinetic test >85% limb symmetry

Precautions:

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

Treatment Strategies:

- Progress Squats program
- Forward step down program
- Initiate lunge progression
- Elliptical Trainer
- Hamstring strengthening
- Retrograde treadmill running

Phase IV – Strengthening and Plyometric Phase (Weeks 16+):

Goals:

- Pain-free running
- Gradual return to full unrestricted activity

Treatment Strategies:

- Forward running
- Advance proprioception drills
- Sports test for return to play