

MICROFRACTURE - FEMORAL CONDYLE POST-OPERATIVE PROTOCOL

PHASE I - MAXIMUM PROTECTION:

WEEKS 0-1:

- Ice and modalities to reduce pain and inflammation
- No knee brace
- Use crutches non-weight bearing for 6 weeks
- CPM x 6 weeks
- Elevate the knee above the heart for the first 3 to 5 days
- Exercises:
 - Initiate patella mobility drills
 - Full passive/active knee range of motion exercises
 - Quadriceps setting focusing on VMO restoration
 - Multi-plane open kinetic chain straight leg raising
 - Gait training with crutches (NWB)

PHASE II - PROGRESSIVE STRETCHING AND EARLY STRENGTHENING:

WEEKS 1-6:

- Continue home CPM use for 6 weeks
- Exercises:
 - Patella mobility and scar massage
 - Initiate global lower extremity stretching program
 - Full passive/active knee range of motion exercises
 - Stationary bike and deep water pool exercise program (once incision is healed)
 - Implement reintegration exercises emphasizing core stability
 - Multi-plane ankle strengthening

PHASE III - STRENGTHENING AND PROPRIOCEPTION:

WEEKS 6-8:

- Discontinue home CPM use
- Begin partial weight bearing at 25% of body weight and increase by 25% approximately 3 days.
 - Day 1: 25% body weight
 - Day 2: 50% body weight
 - Day 3: 75%-100% body weight
- Exercises:
 - Continue Phase II, increase as tolerated

WEEKS 8 TO 12:

- Exercises:
 - Normalize gait pattern
 - Advance stationary bike program; begin treadmill walking and elliptical trainer; avoid running and impact activity
 - Initiate closed kinetic chain exercises progressing from bilateral to unilateral

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Initiate proprioception training

PHASE IV - ADVANCED STRENGTHENING AND INITIATION OF PLYOMETRIC DRILLS:

WEEKS 12-20:

- Exercises:
 - Initiate gym strengthening-beginning bilateral progressing to unilateral
 - Linear walking
 - Swimming
 - Bike outside light gearing

PHASE V - RETURN TO SPORT FUNCTIONAL PROGRAM:

WEEKS 20-24:

**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 drill with gradual progression to lateral and rotational as tolerated
- Bilateral plyometric activity progressing to unilateral as tolerated
- Continue with aggressive lower extremity strengthening, cardiovascular training, and flexibility

MONTHS 6-9:

Sports test for return to play