MICROFRACTURE PROTOCOL

The following protocol should be used as a guideline for rehabilitation progression, but may need to be altered pending the nature and extent of the surgical procedure, healing restraints or patient tolerance.

- Patient will be released from the hospital the same day as surgery
- Surgical dressing should be removed 2 days post op in physical therapy
- Strict protective weight bearing status for 2 months (approximately 8-9 weeks). TTWB for balance or otherwise determined by physician.
- Begin outpatient physical therapy 2-3 days post op.
- Emphasis on range of motion. Patient may perform active assisted range of motion as part of their home exercise program.
- Patient may start an aquatics program to initiate functional exercises in a reduced weight environment after the incisions have healed, approximately 3-4 weeks post-op.
- Emphasis on cycling for range of motion without resistance according to patient tolerance.
- At 2 months, transition to full weight bearing status (transition may vary on a case to case basis). Some patients may transition immediately to full weight bearing status. Others may require a transition to 1 crutch or continued support for long distances, which may be needed for 1-2 weeks.
- The rehab program will proceed cautiously for the first 3 months, after which functional progression will be determined by patient’s tolerance to the exercises and general activity.
MICROFRACTURE PROTOCOL

PHASE 1: EARLY PHASE

Week 1
- Seated knee extensions
- Ankle pumps
- Pelvic tilts
- Trunk rotation
- Double leg bridges
- Prone on elbows
- Prone knee flexion
- Standing abduction without resistance

Week 2
Continue with previous exercises, but may add:
- Supine marching (modified dead bug)
- Superman
- Abduction isometrics
- Standing theraband resistance (start very low resistance) – abduction, adduction, flexion

Week 3
Continue with previous exercises, but may add:
- Seated physioball active hip and knee motions
- Active range of motion with gradual end range stretch within tolerance
- Sidelying hip adduction

Patient may progress to phase 2 when they have achieved the following: minimal pain with phase 1 exercises, minimal range of motion limitations, demonstrates restricted weight bearing during gait

PHASE 2: INTERMEDIATE PHASE

Weeks 4-6
Continue with previous or modified versions of previous exercises, but may add:
- Clamshells
- Progression of 4 way SLR table exercises
PHASE 3: ADVANCED PHASE

Week 7
Continue with previous or modified versions of previous exercises, but may add:
- Superman in quadruped position
- Clamshells with theraband resistance
- Standing theraband or multi-hip in flexion, abduction, adduction, and extension
- Aquatic exercises: flutter kick, swimming, 4 way hip exercises with water weights, step ups

Week 8
Continue with previous or modified versions of previous exercises, but may add:
- Partial squats
- Calf raises

Week 9
Continue with previous or modified versions of previous exercises, but may add:
- Sidestepping with resistance (pause on affected limb)
- Sports cord walking forward and backward (pause on affected limb)
- BOSU squats
- Knee extensions
- Hamstring curls
- Single stability ball bridges

Week 10
Continue with previous or modified versions of previous exercises, but may add:
- Step ups with eccentric lowering
- Lunges (progress from single plane → tri-planar lunges→add medicine balls for resistance and rotation)

PHASE 4: SPORTS SPECIFIC TRAINING CLINIC BASED PROGRESSION

Weeks 11-13
Continue with previous or modified versions of previous exercises, but may add:
- Pool running
- Treadmill jogging
- Step drills, quick feet step ups, forward, lateral carioca
- Plyometrics: double and single leg shuttle jumps
- Theraband walking patterns
FINAL PHASE: SPORT TRAINING ON THE FIELD OR COURT

Weeks 14+
Continue with previous or modified versions of previous exercises, but may add:
- Running progression
- Sport specific drills
- Traditional weight training

Criteria for full return to sport:
- Full range of motion
- Hip strength equal to uninvolved side; single leg pick-up with level pelvis
- Ability to perform sport-specific drills at full speed without pain
- Completion of functional sports test