Hip Arthroscopy Microfracture
POST-OPERATIVE PHYSICAL THERAPY PROTOCOL

Rehabilitation Guidelines

- Avoid aggravation of inflammatory response, protect fibrocartilage formation
- All progression based on soft tissue healing response
- Weightbearing
    - Non-weightbearing first six weeks or per physician's recommendations
    - Discontinue assistive device as gait mechanics normalize

Range of Motion

- Flexion within pain-free range and no anterior impingement
- Anterior Repair:
    - Extension and external rotation within pain-free range and no overpressure
- Posterior Repair:
    - Flexion, adduction and internal rotation within pain-free range and limit overpressure
- Utilize both weightbearing and non weight bearing mobility techniques
- Chondroplasty procedure follow same parameters

Bracing

- No post-operative bracing unless indicated by surgeon

Other

- Don't push through hip flexor pain/inflammation
- No ballistic stretching or forced stretching

Phase I – Initial Exercise
Goals

- Protect integrity of the repaired tissue
- Improve ROM within parameters
- Reduce pain and inflammation
- Prevent muscular inhibition

Precautions
Do not push through hip flexor pain

Weeks 0-2

- Passive hip circumduction: First post-op visit until gait is normal and pain free
    - 3 minutes clockwise/counterclockwise each at slight flexion (6 total minutes)
    - 3 minutes clockwise/counterclockwise each at 70^{o} flexion (6 total minutes)

- "Belly time": lie prone for 20 minutes, twice daily
- Ankle Pumps
- Glut, quad, hamstring, transverse abdominus isometrics
- Stationary bike with minutes resistance (1/2 revolutions, progressing to full)
- Active assisted ROM all directions → avoid anterior impingement with IR and flexion.
- Passive ROM log rolling IR/ER
- Heel slides
- Quadruped rocking
- Hip abduction/adduction isometrics
- Prone IR/ER isometrics

Weeks 2-4

- Stationary Bike
- Continue AROM
- Begin aquatic therapy program, if available
- Progress hip abd/add isometrics to progressive resistance
- Progress hip extension progressive resistance
- Progress hip IR/ER isometrics to progressive resistance
- 3-way straight leg raises (abduction, adduction, extension)
- Double leg bridges
- Short lever hip flexion
- Half kneeling hip flexor stretch
- Quadruped rocks
- Piriformis stretch
- Clamshells (supine progress to sidelying)
- Oscillatory grade I-II joint mobilizations - distraction

Weeks 4-6

- Stationary bike
- Continue aquatics program
- Straight leg raises – initiate flexion (pain-free)
- Continue short lever hip flexion if flexion SLR is pain full
- Hip progressive resistance (extension, abduction, adduction, IR, ER)
- Sidelying clamshells
- Kneeling hip flexor stretch
- Prone planks
- Oscillatory grade I-II joint mobilizations – distraction

Criteria for Progression to Phase II:

- Minimal pain with all Phase I exercises
- ROM $\geq$ of the uninvolved side (with exception of ER)
- Proper muscle firing patterns for initial exercises
- Do not progress to Phase II until full weightbearing is allowed

Phase II – Intermediate Phase
Goals

1. Protect integrity of repaired tissue
2. Restore full ROM
3. Restore normal gait pattern
4. Progressively increase muscle strength

Precautions

- No ballistic or forced stretching
- Avoid painful treadmill use
- Avoid hip flexor/joint inflammation

Weeks 7-12

- Stationary bike with resistance
- Elliptical
- Stairclimber
- Manual long axis distraction (gradual)
- Manual A/P mobilizations – emphasis on posterior
- Mini squats to 45 degrees
- Single leg stance (progress from stable to unstable surfaces)
- Advanced bridging (double leg to single leg, Swiss Ball)
- Pelvic stability exercise
- Side planks
- Side steps
- Lateral stepdowns
- Partial single leg squats

Criteria to Progress to Phase III

- Full ROM
- Pain free, normal gait pattern
- Hip flexion strength > 60% of the uninvolved side
- Hip add, abd, ext, IR, ER strength > 70% of the uninvolved side

Phase III – Advanced Rehabilitation
Goals

1. Restoration of muscular endurance and strength
2. Restoration of cardiovascular endurance
3. Improvement of coordination, balance and neuromuscular control

Precautions

- Avoid hip flexor irritation
- Avoid hip joint irritation
- No ballistic or forced stretching
- Begin treadmill use gradually
- No contact activity

Weeks 12-16

- Lunges
- Lateral agility exercises
- Increased aquatic therapy
- Forward/backward cord exercises
- Side steps with cord
- Running progression

Criteria to Progress to Phase IV

1. Hip flexion strength > 70% of the uninvolved side
2. Hip add, abd, ext, IR, ER strength > 80% of the uninvolved side
3. Cardiovascular fitness returning to pre-injury levels
4. Demonstration of initial agility drills with proper mechanics

Phase IV – Sport Specific Training

Goals

Return to Sport

Weeks 17-26

- Z-Cuts
- W-Cuts
- Cariocas
- Running progression
- Plyometrics
- Initial agility drills
- Sports-specific drills
- Functional tests
- Recommended: Lower Extremity Functional Scale (LEFS) and Hip Outcome Score (HOS)

Criteria for Return to Competition

1. Full pain-free ROM
2. Hip strength > 85% of the uninvolved side
3. Ability to perform sports-specific drills at full speed without pain
4. Functional tests