

## Hip Arthroscopic Microfracture and Labral Repair Rehab Protocol

### **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-weightbearing 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 1 – 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-degree flexion (6 total minutes)
- "Belly time": lie prone for 20 minutes, twice daily
- Ankle Pumps
- Glute, quad, hamstring, transverse abdominus isometrics
- Stationary bike with minutes resistance ( $\frac{1}{2}$  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

## Phase I

### 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 bridge
- 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

### Week 4-6

- Stationary bike
- Continue aquatics program
- Straight leg raises – initiate flexion (pain free)
- Continue short level hip flexion if flexion SLR is painful

- 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 > 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 2 – Intermediate Phase

### *Goals:*

- Protect integrity of repair tissue
- Restore full ROM
- Restore normal gait pattern
- 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 3*

- 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 3 – Advanced Rehabilitation**

### **Goals:**

- Restoration of muscular endurance and strength
- Restoration of cardiovascular endurance
- 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 pass to Phase 4**

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

## **Phase 4 – 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**

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