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Hip Arthroscopy Physical Therapy Protocol

The intent of this protocol is to provide guidelines for progression of rehabilitation, it is not intended to serve as a substitute for clinical decision making. Progression through each phase of rehabilitation is based on clinical criteria; there will be variability between patients in terms of time frames and it is crucial not to progress through phases until the individual is ready and has met clinical criteria. Also, not every patient will need to go through all phase to attain their desired goal. PT protocols should be individualized to each patient.

Weight Bearing:

- Foot flat weight bearing for 4 weeks
- Micro fracture procedures will remain FFWB for 6-8 weeks

Initial ROM Related Restrictions for 2 weeks:

- Flexion to 120°
- External rotation to 0°
- Extension to 0°
- Abduction to 45°
- CPM 4-6 hours daily
- Spend 2 hours per day on stomach to allow for mild stretching of the hip flexor
- Avoid impinging with flexion and FADIR ROM exercises

Goals:

- Reduce swelling and pain
- Restore mobility within limitations
- Restore normal gait
- Promote normal proprioceptive and neuromuscular control

PHASE ONE: Protection Phase

Weeks 1-4

With Micro fracture - Weeks 1-9

Initial Precautions:

Pain and Swelling

- PRICE - Protection, Rest, Ice Compression, Elevation
- Ice a minimum 5-6 time per day for 20-30 minutes sessions (no maximum)
- Icing is encourage to be done in prone position
- Ankle pumps for swelling and DVT prevention

Range of Motion

- Passive Range of Motion
- Partner assisted ROM recommended 2 times per day, 10 minutes total, each episode divided between the following three motions:
 - 1) Circumduction to be done at 30° of hip flexion in addition to,
 - 2) Abduction and,
 - 3) Internal rotation (log rolls) with the hip in neutral
- Circumduction to be done at 70° of hip flexion by PT only
- Active/Active Assistive Range of Motion
- Stationary bike without resistance 20 minutes per day
- No recumbent biking to avoid hip flexor contractures
- Week 1 begin quadruped rocking and cat/camel for hip flexor stretching
- Initiate Thomas stretch for the hip flexor at Week 3
- Joint mobilization with a belt can be utilized beginning at Week 4

Always avoid terminal hip flexion that results in pinching

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PHASE ONE (continued)

Aquatic Therapy

- Begin after Week 2 once stitches have been removed
- Purpose is motor control and ROM exercises
- Circumduction, Skaters, 1/3 squats
- Forwards and backwards gait with emphasis on full hip extension and an upright trunk

Strength/Motor Control

Isometrics

- Quad sets, Glut sets, Transverse abdominus isometrics
- Edge of bed hip extension
- Standing Skaters (abduction with internal rotation for glut medius)
- Hamstring curls with the Swiss ball for initial psoas activation avoiding adductor compensation (Week 3-4)
- Tall kneeling with controlled rotation
- Proprioception and Neuromuscular Re-education
- Prone IR/ER rhythmic stabilization exercises
- Quadruped lumbopelvic stabilization exercises
- 1/2 kneeling for stability prior to full weight bearing
- Standing forward flexion

Gait

- Crutches with FFWB are indicated for the first 4 weeks to keep excessive load off of the hip and protect healing structures. This will also help to reduce swelling and pain. Micro fracture procedures must remain FFWB for 6-8 weeks.
- Weaning from crutches.
- Begin with tall kneeling and standing weight shifting exercises
- Progress weight on two crutches
- Focus on gait exercises to promote normalized hip extension and lumbar stabilization

Criteria for advancement to Phase TWO:

- Pain free PROM 80° equal to the contralateral limb
- Able to maintain full bridge position without compensations
- Minimal deviations in gait with no discomfort

*** Do not progress if the patient demonstrates Trendelenburg gait, does not have equal hip extension at terminal stance or cannot actively advance the leg during swing phase pain-free***

Maintain stable tall kneeling position without anterior hip discomfort

*** Never progress exercises if patient is having anterior hip pain or groin pain***

Goals

- Full active and passive ROM, including pain-free standing hip flexion
- Rotary stability, including side and front planks without compensations or pain
- Normalize gait
- Increase leg strength to allow for:
 - Walking 1 mile
 - Stair ascending/descending

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PHASE TWO: Initial Strengthening

Weeks 6-12

With micro fracture - Weeks 9-13

- Single leg bridge
- Double knee bends without compensations
- Single knee bend to 70° without compensations
- Strength, Proprioception and Neuromuscular Re-education
- Closed chain single and double leg strength and stability exercises at therapists discretion, such as reverse lunge with glider

Cardio

- Bike or spinning gradually increasing resistance at week 6; limit to a maximum of level 5 for the following 2 weeks with 30 minutes total time; then continue to progress gradually if there is no increased hip pain
- Elliptical trainer beginning at Week 10 (limit trainer time to 20 minutes the first 1-2 weeks in order to ensure no increased hip pain)
- Swimming without leg kick (pool buoy) beginning at Week 8. Swimming with kicking allowed at Week 12, only if there is no hip flexor pain

Criteria for advancement to Phase Three:

- Full active and passive ROM
- Ascending and descending stairs with involved leg without pain or compensation
- Gait without deviations or pain after 1 mile of walking on level surface
- At least 1 minute of double knee bends without compensations
- Single knee bends to 70° flexion without compensations
- Rotary stability and ability to hold plank

Goals

- Restore multi-directional strength and agility
- Restore ability to absorb impact on leg (plyometric strength)
- Full active hip extension control for normal running mechanics

Proprioception/Agility

- Progress single leg strengthening, including bosu proprioceptive training and added time to single leg knee bends

PHASE THREE: Advanced Strengthening

Post Op Week 12

Sport Specific Training

- Reinforce posterior chain strength and endurance
- Initiate light agility including lateral agility

*** No running or kicking activities until a minimum of 5 months and patient is able to demonstrate pain-free standing repetitive hip flexion***

Criteria for advancement to Phase Four

Bilateral 1 minute single leg stance with alternate hip flexion/extension

Resisted single leg squat for 3 minutes

Perform sport specific strength training and drills until patient begins team training progression

*** Also, closed chain Pilates is recommended for hip maintenance and can be very helpful in the final phase of PT to address late muscular glut imbalance and maintain posterior chain strength. ***