



Hip Arthroscopy Rehabilitation Protocol

1. Concepts:

- a. Range of motion and weight bearing restrictions must be adhered to during the initial rehab process (4 total weeks of ROM and weight bearing restrictions)
- b. It is recommended that the physical therapist meets with the patient on a weekly or every other week basis during the initial 8 weeks of the rehab process to assess the patient's status and progress flexibility, strength, proprioception and cardio-vascular fitness as able.
- c. Throughout the rehab process the physical therapist and patient should avoid exercises and activities which create pain in the involved hip. Communication between the physical therapist, patient and MD is critical in achieving ideal outcomes.

2. Week 1:

- a. Key concepts:
 - i. The primary focus of this time period is to allow the joint to calm down following the surgical intervention and begin working on the mobility and stability within the hip joint.
 - ii. No internal or external rotation with the hip flexed until the patient is four weeks out from surgery.
 - iii. Strength training is limited by current weight bearing status.
 - iv. Outcome tools given to the patient at evaluation and periodic re-evaluations:
 1. PSFS: Patient specific functional scale.
 2. LEFS: lower extremity functional scale.
- b. Weight bearing:
 - i. Partial weight bearing while using axillary crutches or walker.
 - ii. Patient should be instructed in heel to flat foot gait pattern.
- c. Mobility training:
 - i. Passive range of motion with help from patient's family member or friend.
 - ii. Flexion is limited to 90 degrees for four weeks.
 - iii. Abduction as tolerated.
 - iv. Comfortable internal/external log rolling while the patient is supine.

- d. Strength training:
 - i. Hip abduction and adduction isometrics.
 - ii. Quadriceps, hamstrings and gluteal activation exercises.
 - iii. Abdominal training.
 - iv. Ankle isometric strengthening.

3. Week 2-4:

- a. Key concepts:
 - i. Continue to allow the involved hip to calm down.
 - ii. Continue to stress PRICE principles.
 - iii. Standing active hip extension should not exceed 10 degrees, emphasize gluteal activation.
 - i. Stationary bike may be started. 90 degree flexion of hip is maintained while seated on bike. Patients should NOT utilize a recumbent bike.
- b. Weight bearing:
 - i. Partial weight bearing with appropriate gait aide (4 total weeks)
- c. Mobility training:
 - i. Initiate active assistive range of motion to active range of motion of the involved hip as passive range of motion improves in both comfort and degree.
 - ii. Initiate hip extension with performance of prone knee flexion. Avoid any anterior hip pain especially in patients who have undergone hip flexor lengthening.
 - iii. Prone hip internal rotation may be started.
- d. Strength training:
 - i. Progress core and lower extremity training that is appropriate for patient's current range of motion and weight bearing status.
- e. Cardio-vascular training:
 - i. Standard stationary bike. Begin with 5 minutes and progress up to 30 minutes with no tension. Seat adjusted so that hip does not flex past 90 degrees.

4. Week 5:

- a. Key concepts:
 - i. The primary focus for this time period is to begin advancing the patient to full weight bearing.
 - ii. Patient continues to improve range of motion and core/lower extremity strength.

- b. Weight bearing:
 - i. Patient begins weight bearing as tolerated with axillary crutches. Slowly progress with weight bearing until normal gait mechanics are attained. If needed, one crutch may be used to progress with weight bearing.
- c. Mobility training:
 - i. Hip flexion is no longer limited other than by discomfort or pain.
 - ii. Prone hip internal/external rotation as tolerated. Do not cause hip joint pain.
 - iii. Hip extension is still limited to 10 degrees.
- d. Strength training:
 - i. Core exercises are progressed.
 - ii. Lower extremity exercises are progressed.
 - iii. Advance to weight bearing exercises for both as patient achieves normal gait.
 - iv. No loaded strength training beyond 90 degrees hip flexion
- e. Cardio-vascular training:
 - i. Stationary bike. Work towards 30 minutes.
- f. Pool:
 - i. Wounds must be completely healed. No scab.
 - ii. Work on walking in chest deep water.
 - iii. Active range of motion of hip in all planes as tolerated.
 - iv. Deep end/life jacket:
 - v. Walking motion.
 - vi. Cycling.

5. Week 6:

- a. Key concepts:
 - i. Ideally, patient is ambulating without gait aide by six weeks post-op.
 - ii. General lower extremity stretching is initiated.
- b. Mobility training:
 - i. Classic lower extremity stretches are started.
 - ii. Begin with short hold times and advance to 30 second holds as able.
 - iii. Do not force hip external rotation or extension.
- c. Strength training:
 - i. Advance proprioception training.
 - ii. Continue to work on lower extremity and core strength. Maximize hip strength in all planes of motion.

- d. Cardio-vascular training:
 - i. Once stationary bike time is at 30 minutes duration, advance to Elliptical trainer and/or StairMaster when patient is able to bike for 30 minutes.

6. Week 8:

- a. Key concepts:
 - i. Address any gait issues which remain.
- b. Mobility training:
 - i. Address any asymmetry in lower extremity mobility.
 - ii. Daily stretching should be stressed.
- c. Strength training:
 - i. Continue to train the core, hips and lower extremities.
 - 1. All planes of motion.
 - 2. When able, multiple planes of motion within an exercise.
 - ii. Utilize proprioception in weight bearing drills as able.
 - iii. Every other day strength training.
- d. Cardio-vascular training:
 - i. Patient continues to build to 30 minutes during low-impact aerobic conditioning.
 - ii. Stationary bike, elliptical trainer or StairMaster.

7. Week 12:

- a. Testing:
 - i. Outcome tools:
 - 1. PSFS: Patient specific functional scale.
 - 2. LEFS: lower extremity functional scale.
 - ii. Y-balance test.
 - iii. Hand held dynamometer testing of multiple hip positions.
 - 1. Recommended testing positions include:
 - a. Seated
 - i. Hip flexion
 - ii. Hip internal rotation
 - iii. Hip external rotation
 - b. Sidelying
 - i. Hip abduction
 - ii. Hip adduction
 - c. Prone

- i. Hip extension
 - ii. Hip internal rotation
 - iii. Hip external rotation
 - iv. Functional movement screen:
 1. Squat screen (no hip flexion greater than 90 degrees)
 2. Lunge screen (no hip flexion greater than 90 degrees)
 3. Hurdle step.
 4. Trunk stability push-up.
 5. Rotary stability.
 6. Shoulder mobility.
 - v. Address asymmetries in balance, strength, and movement.
- b. Mobility training:
 - i. Begin multiple-plane stretching as able.
- c. Strength training:
 - i. Maximize core, hip and lower extremity strength.
 - ii. Incorporate proprioception into exercises as able.
 - iii. Weight-bearing training should be emphasized.
 - iv. Initiate power development in athletes as able.
- d. Agility training for athletes:
 - i. Low level ladder drills.
 - ii. Promote foot quickness and horizontal movement skills over vertical movements.
 - iii. Athletes will begin to incorporate sport-specific drills assuming they have met appropriate criteria have been cleared by MD.
 1. Criteria:
 - a. Full hip range of motion.
 - b. Normal gait.
 - c. Symmetric hip dynamometer testing.
 - d. No lower than a grade of 2 on any functional movement screen.
 - e. Y-balance composite score is 94% or better and anterior reach score is within 4 cm of the uninvolved lower extremity.
- e. Cardio-vascular training:
 - i. Athletes should begin anaerobic and aerobic interval training to begin preparing for return to play.
 - ii. Sport and plyometric training should continue to be low-impact.
 - iii. Able to initiate return to running program at this time

8. Week 24:

- a. Testing:
 - i. "Y" balance test.
 - ii. Functional movement screen.
 - iii. Address any movement faults found.
 - iv. Outcome tools given to the patient at evaluation:
 - 1. PSFS: Patient specific functional scale.
 - 2. LEFS: lower extremity functional scale.
 - v. Hand dynamometer testing
- b. Core training:
 - i. Core training should involve multiple planes when able.
 - ii. Core training should address stability in all three planes of motion.
 - iii. Core training should address sports specific concerns.
- c. Plyometric training:
 - i. Sport specific.
- d. Energy system training:
 - i. Anaerobic intervals with appropriate work to rest ratios.
 - ii. Continue with aerobic intervals.
 - iii. Begin to advance impact loading.