



Adam J. Farber, MD

Sports Medicine and Orthopaedic Surgery
Board Certified; Fellowship-trained in Sports Medicine & Arthroscopic Surgery
P: 480-219-3342; F: 480-219-3271

Post-Operative Physical Therapy Protocol for Proximal Hamstring Tendon Repair

Phase I: Post-operative Weeks 0 – 6

Goals:

1. Protection of the repair

Precautions:

1. Non-weightbearing with crutches x 6 weeks
2. Avoid active hamstring contraction
3. Avoid hip flexion greater than 60°
4. No active knee flexion against gravity
5. Knee extension limited pending intra-operative tension on the repair

Allowable knee extension: _____

Weight-bearing:

1. Non-weightbearing with crutches x 6 weeks

Ice:

1. Ice 4-6 times per day for 15-30 minutes per session

Exercises:

1. Quadriceps sets (4 x 20 reps/day)
2. Ankle pumps (20-30 reps/hour)
3. Begin passive range of motion of the knee and hip at week 2. Do not exceed 60° of hip flexion. Do not allow knee extension beyond the restrictions stated above and limited by the brace.
4. Begin gentle active range of motion of the knee and hip at week 4. Do not exceed 60° of hip flexion. Do not allow knee extension beyond the restrictions stated above and limited by the brace. No active knee flexion against gravity.

Other:

1. Light desensitization massage to the incision and posterior hip

Phase II: Begins at Post-operative Week 6

Goals:

1. Restoration of normal gait
2. Return of pain-free functional ADLs

Precautions:

1. No hamstring strengthening exercises
2. No hamstring stretching exercises

Weight-bearing:

1. Begin gait training with progression to full weightbearing as tolerated

Exercises:

1. Continue Phase I exercises
2. May begin active knee flexion against gravity

Phase III: Begins at Post-operative Week 12

Goals:

1. Return to unrestricted ADLs at home and work
2. Hamstring strengthening

Exercises:

1. Continue Phase II exercises
2. Begin hamstring flexibility exercises
3. Begin hamstring strengthening exercises
 - a. Begin with hamstring curls strengthening exercises with the patient standing with the hip joint held in neutral position and the lower leg moving against gravity in pain-free arcs
 - b. Resistance is increased a pound at a time as tolerated with emphasis on high repetitions (50 reps) and high frequency (4-5 times/day)

- c. When the patient is able to move through a full and pain-free knee flexion arc with 8-10 pounds of high reps, patients can transition from standing to machine hamstring curls.
4. Begin total leg and hip strengthening exercises:
 - a. Quarter squats: Begin bilaterally and progress to unilateral status
 - b. Heel raises: Begin bilaterally and progress to unilateral status
 - c. Gluteus maximus strength exercises progress from prone (heel pushes with the knee flexed at 90° to hip extension with the knee flexed at 90° to hip extension with an extended knee) to supine (bilateral to unilateral bridging)
 - d. Gluteus medius strengthening is started in a side-lying position and is progressed to the upright position.
 - e. Patients can begin unilateral knee extension and leg press activities with light resistance and increase resistance as the surgical hip tolerates.

Phase IV: Post-operative Months 5-9

Goals:

1. Completion of a functional program for the patient's return to sport activity

Exercises:

1. Continue Phase III exercises
2. Perform advanced proprioceptive training
3. Closed kinetic chain hamstring exercises, such as advanced step downs, double to single-leg Swiss ball hamstring curls, resisted incline hip extensions, Roman deadlifts, and half to full squat progression with progressive resistance, can gradually be introduced.
4. Low level plyometrics, such as jump rope, step lunges in multiple directions with progression to walking lunges, can be introduced.
5. Patient may begin a light jogging progression

Return to sporting activities is typically allowed at 6-9 months postoperatively

Progression Criteria to Return to Sport

1. Hamstring strength is 75% of the contralateral side