

PROXIMAL HAMSTRING TENDON REPAIR REHAB PROTOCOL

Phase I: Weeks 0-6

Goal:

- 1) Protection of the surgical repair

Precautions:

- 1) TTWB with crutches for 4 weeks then progress WBAT as quad allows
- 2) No active hamstring contraction
- 3) No hip flexion greater than 45° or brace setting
- 4) No active knee flexion against gravity

Exercises:

- 1) Pelvic tilts (5 sec holds x 20/day)
- 2) NMES c SAQ (1/2 bolster) with hip flexion less than 20 degrees
- 3) Isometrics hip abduction/adduction/external rotation (5 sec holds x 10/day)
- 4) Quadriceps sets (4 x 20 reps/day)
- 5) 5 Ankle pumps (20-30 reps/hour)
- 6) Begin passive range of motion of the knee and hip at week 2. Do not exceed 45° of hip flexion. Do not allow knee extension beyond the restrictions stated above
- 7) Begin gentle active range of motion of the knee and hip at week 4. Do not exceed 45° of hip flexion. Do not allow knee extension beyond the restrictions stated above. No active knee flexion against gravity.

Other:

- 1) Light desensitization massage to the incision and posterior hip
- 2) Light scar massage

Phase II: Weeks 6-9

Goals:

- 1) Restoration of normal gait
- 2) Return of pain free functional ADL

Precautions:

- 1) No hamstring strengthening exercises
- 2) No hamstring stretching exercises

Exercises

- 1) Continue week 0-6 exercises
- 2) May begin active knee flexion against gravity (concentric)
- 3) Weight shifts
- 4) Straight leg raises or SAQ into SLR
- 5) Gentle quadruped rocking
- 6) Gentle stool stretches for hip flexion and adduction
- 7) Gluteus medius strengthening is progressed in a side-lying position (clam shells)

Phase III: Weeks 9-12

Goals:

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

Exercises:

- 1) Continue week 6-9 exercises
- 2) Begin hamstring flexibility
- 3) Begin hamstring strengthening
 - a. Begin with hamstring curls with patient standing and hip in neutral position and lower leg moving against gravity in pain free arcs.
 - b. Resistance increased a pound at a time as tolerated with emphasis on high repetitions (50 reps) and high frequency (4-5 times a day).
 - c. When the patient is able to move through a full and pain free knee flexion arc with 8-10 lbs 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
 - b. Heel raises: begin bilaterally and progress to unilateral
 - 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 further progressed to the upright position (hip hiking and multi-hip machine).
 - e. Patients can begin unilateral knee extension and leg press activities with light resistance and increases as tolerated.
 - f. Balance and proprioception (balance board, foam, dynamic progression)

Phase IV: Months 3-6

Goals:

- 1) Progress hamstring strengthening
- 2) Advance sports specific activity

Exercises:

- 1) Progress Phase III exercises.
- 2) Progress non impact cardio as tolerated (ie bike, elliptical trainer).
- 3) May begin jog progression after 4 months if pain free and adequate strength.
- 4) Avoid plyometric activity until minimum 5 months with goal of return to play at 6 months depending of physician approval.