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## **Proximal Hamstring Repair Rehabilitation Protocol**

<u>Postop</u>	<u>Goals</u>	<u>Precautions</u>	<u>Exercises</u>
Weeks 0-6 PT 1-2x/week HEP daily	Edema and pain control Protect surgical repair  Light desensitization massage to the incision and posterior hip  Scar massage Silicone patch over incision	Non-weight bearing with crutches x 6 weeks - Hip brace 0-2 wks: Flexion only 45° 2-4 wks: Flexion only 60° 4-6 wks: Flexion only 90° No active hamstring contraction No hip flexion with knee extended No active knee flexion against gravity Knee extension limited pending intra-operative tension of repair	<ul> <li>Pelvic tilts (5 sec holds x 20/day)</li> <li>NMES c SAQ (1/2 bolster) with hip flexion less than 20°</li> <li>Isometrics hip abduction/adduction/ER (5 sec holds x 10/day)</li> <li>Quadriceps sets (4x 20 reps/day)</li> <li>5 Ankle pumps (20-30 reps/hour)</li> <li>Begin passive ROM of the knee and hip at week</li> <li>2. o not exceed 45° of hip flexion. Do not allow knee extension beyond the restrictions stated above and limited by the brace</li> <li>Begin gentle AROM of the knee and hip at week</li> <li>4. Do not exceed 45° of hip flexion. Do not allow knee extension beyond the restrictions stated above and limited by the brace. No active knee flexion against gravity.</li> </ul>
Weeks 6-9 PT 2x/week HEP daily	Restoration of normal gait  Weight-bearing progression to full weight bearing as tolerated  Return to pain-free functional ADL	No hamstring strengthening exercises No hamstring stretching exercises	<ul> <li>Continue week 0-6 exercises</li> <li>May begin active knee flexion against gravity (concentric)</li> <li>Weight shifts</li> <li>Straight leg raises or SAQ into SLR</li> <li>Gentle quadruped rocking</li> <li>Gentle stool stretches for hip flexion and adduction</li> <li>Gluteus medius strengthening is progresses to isotonics in a side-lying position (clam-shells)</li> </ul>
Months 3-4 PT 1-2x/week HEP daily	Return to unrestricted ADLs at home and work Hamstring strengthening		<ul> <li>Continue week 6-9 exercises</li> <li>Begin hamstring flexibility exercises</li> <li>Begin hamstring strengthening exercises</li> <li>1. Begin with hamstring curls strengthening exercises with the patient standing with the hip help in a neutral position and the lower leg moving against gravity in pain-free arcs</li> <li>2. Resistance is increases 1lb at a time as tolerated with emphasis on high reps (50 reps) and high frequency (4-5x/day)</li> </ul>



**Proximal Hamstring Repair Rehabilitation Protocol** 

- When able to move through full and pain-free knee flexion arc with 8-10lbs of high reps, can transition from standing to machine hamstring curls
- Begin total leg and hip strengthening exercises
  - Quarter squats: begin bilateral and progress to unilateral
  - Heel raises: begin bilateral and progress to unilateral
  - Gluteus maximum strength exercises –
    progress from prone (heel pushes with knee
    flexed to 90° to hip extension with the knee
    flexed at 90° to hip extension with extended
    knee) to supine (bilateral to unilateral bridging)
  - 4. Gluteus medius strengthening is further progressed to the upright position (hip hiking and multi-hip machine)
  - 5. Patients can begin unilateral knee extension and leg press activities with light resistance and increase resistance as surgical hip tolerates
- Balance and proprioception (Balance board → foam → dynadics)

## Months 5-9 HEP daily

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

- Continue week 12 exercises
- Perform advanced proprioceptive training
- Closed kinetic chain hamstring exercise, such as advanced step downs, double to sing-leg Swiss ball hamstring curls, resisted incline hip extensions, Roman dead-lifts, and half to full squat progression with progressive resistance, can gradually be introduced
- Low level plyometrics, such as jump rope, step lunges in multiple directions with progression to walking lunches, can be introduced
- Patient may begin a light jogging progression
- Return to sporting activities is typically allowed at 6-9 months post-operatively

## Progression Criteria to Return to Sport

- No pain with normal daily activities
- Hip and knee range of motion within functional limits
- Community mobility without pain
- Hamstring strength is 75% of the contralateral side (concentric and eccentric)