

Carlton Houtz, M.D.
Highland Clinic Orthopaedics and Sports Medicine

Proximal Hamstring Tendon Repair Rehab Protocol

Weeks 0-6:

Goal:

1. Protection of surgical repair

Precautions:

1. Non-weight bearing with crutches for 6 weeks with knee flexion brace locked at 90°
2. No active hamstring contraction
3. No hip flexion greater than 45°
4. No active knee flexion against gravity
5. Knee extension limited pending intra-operative tension on the repair

Durable Medical Equipment:

1. Knee flexion brace locked at 90° to be worn at all times, including sleeping
2. Progress ROM by 30° per week to full ROM by 8 weeks
3. Cryotherapy unit to be used 4-6 times per day for 20 minutes per session
4. Crutches-Non-weight bearing for 4 weeks with progression to full-weight bearing weeks 5-7

Exercises:

1. Cryotherapy for pain and swelling control 3-5x/day
2. Knee brace when up
3. Teach patient how to transfer from supine to six, stand to sit, as well as perform ADLs safely. (Avoid greater than 45° of hip flexion when the knee is extended during any and all activities, ie. sitting).
4. Heel props with quad sets, supine position only, to avoid knee stiffness and quad shut down.

Other:

1. Light desensitization massage to the incision and posterior hip
2. Scar massage
3. Silicon patch over incision (if open repair)

Clinical follow-up:

1. Follow-up with physician at approximately 2 weeks postoperative

Weeks 6-8:**Goal:**

1. Discontinue knee flexion brace
2. Restore normal gait
3. Pain free and normal functional ADLs

Precautions:

1. Monitor tenderness of surgery site
2. No hamstring flexibility or stretching exercises are to be performed during this phase. Lengthening of the repair and return of normal hamstring flexibility will be allowed to occur on its own. (This is traditionally not an issue following this procedure)

Durable Medical Equipment:

1. Progress ROM of knee flexion brace by 30° per week to full ROM by 8 weeks

Exercises:

1. Restore normal gait pattern (emphasize good leg control with extension of knee during swing phase and heel strike)
2. Improve ADL function, ie. sit \square stand, stairs, etc.
3. Begin light hamstring strengthening with low loads, high reps and high frequency by performing hamstring leg curls in standing with the hip extended. Start with zero resistance then progress as tolerated 1 lb at a time-2 sets/20, 4-5x/day
4. Begin Total Leg Strengthening (TLS):
 - a. Heel raises
 - b. Quad sets (active heel lift)
 - c. Short arc quads
 - d. General hip strengthening in side lying (gluteus maximus and medius)
 - e. Single leg balance for proprioception

Other:

1. Light desensitization massage to the incision and posterior hip
2. Scar massage

Clinical follow-up:

1. Follow-up with physician at approximately 8 weeks postoperative to advance rehab and monitor progress

Weeks 8-12:**Goal:**

1. Pain-free performance of non-impact aerobic activities
2. Unrestricted ADLs at home or work

Precautions:

1. Monitor hamstring flexibility and tenderness of surgery site

Exercises:

1. Begin non-impact aerobic conditioning as tolerated with any of the following:
 - a. Stationary bike
 - b. Stairmaster
 - c. Elliptical trainer
 - d. Nordic track
 - e. Aquatic therapy with swimming or functional activities in the water (Avoid forceful, explosive or repetitively strainful activities)
2. Continue to progress TLS as tolerated:
 - a. $\frac{1}{4}$ squats
 - b. Stepdowns
 - c. Leg press
 - d. Knee extensions
 - e. Heel raises
 - f. Hip abductor in standing with tubing or machine
 - g. Balance and proprioceptive training
3. Progress hamstring strengthening in standing by increasing weight or initiating TheraBand
4. Patient may progress to prone position on a machine and then to seated leg curls (with hip flexed at 90°) on a machine or with tubing

Clinical follow-up:

1. Follow-up with physician at approximately 14 weeks postoperative to release to all activities as tolerated. The patient's frequency of follow-up with the therapist will be determined on an individual basis and depend largely on the patient's compliance, as well as the patient's and therapist's comfort level.