

ENDOSCOPIC OR OPEN PROXIMAL HAMSTRING REPAIR REHAB GUIDELINES

These guidelines should be tailored to individual patients based on their rehab goals, age, precautions, quality of repair, etc. Progression should be based on patient progress and approval by the referring physician.

*Therapy may not be needed for as long as the protocol is listed based on the patient's goals. Timeframes may also be extended or shortened based on the surgery completed *

PHASE I (surgery to 6 weeks)

Appointments

- Rehabilitation appointments begin 7-10 days after surgery and are once every 7-10 days

GOALS:

- Protection of the repaired tendon(s)
- Pain control

WEIGHT BEARING:

- Use axillary crutches for up to 6 weeks
- Post-operative weeks 0-2: Touch down weight bearing
- Post-operative weeks 3-4: 15% - 40% weight bearing progression
- Post-operative weeks 5-6: Weight bearing as tolerated with weaning from crutches

BRACE:

- The use of a brace is determined by the surgeon at the time of surgery, which is based on time of year, timing of surgery and associated injuries
- In general hinged knee brace is left open and can be worn during day but not necessary around the home. Locked at 50 degrees at night

PRECAUTIONS:

- Avoid hip flexion coupled with knee extension
- Avoid unsafe surfaces and environments

SUGGESTED EXERCISES/TREATMENTS:

- Quad sets
- Ankle pumps
- Abdominal isometrics
- Passive knee range of motion (ROM) with no hip flexion during knee extension
- Post-operative weeks 3-4: Begin pool walking drills (without hip flexion coupled with knee extension), hip abduction, hip extension, and balance exercises
- Scar mobilizations

CARDIOVASCULAR EXERCISE:

- Upper body circuit training or upper body ergometer (UBE)

PROGRESSION CRITERIA:

- 6 weeks post-operative

PHASE II (6-12 weeks)

Appointments

- Rehabilitation appointments are once every 1-2 weeks

GOALS:

- Normalize gait
- Good control and no pain with functional movements, including step up/down, squat, partial lunge (do not exceed 60° of knee flexion)

PRECAUTIONS:

- Avoid dynamic stretching
- Avoid loading the hip at deep flexion angles
- No impact or running

SUGGESTED EXERCISES/TREATMENTS:

- Non-impact balance and proprioceptive drills – beginning with double leg and gradually progressing to single leg.
- Stationary bike
- Gait training
- Begin hamstring strengthening – start by avoidance of lengthened hamstring position (hip flexion combined with knee extension) by working hip extension and knee flexion moments separately; begin with isometric and concentric strengthening with hamstring sets, heel slides, double leg bridge, standing leg extensions, and physio ball curls.
- Hip and core strengthening

CARDIOVASCULAR EXERCISE:

- Upper body circuit training or UBE

PROGRESSION CRITERIA:

- Normal gait on all surfaces
- Ability to carry out functional movements without unloading the affected leg or pain while demonstrating good control.
- Single leg balance greater than 15 seconds
- Normal (5/5) hamstring strength in prone with the knee in a position of at least 90° knee flexion

PHASE III (Weeks 12-16)

Appointments

- Rehabilitation appointments are once every 1-2 weeks

GOALS:

- Good control and no pain with sport and work specific movements, including impact

PRECAUTIONS:

- No pain during strength training
- Post-activity soreness should resolve within 24 hours.

SUGGESTED EXERCISES/TREATMENTS:

- Continue hamstring strengthening – progress toward strengthening in lengthened hamstring positions; begin to incorporate eccentric strengthening with single leg forward leans, single leg bridge lowering, prone foot catches, and assisted Nordic curls
- Hip and core strengthening

- Impact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to the other and then 1 foot to same foot.
- Movement control exercise beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities.
- Initiate running drills, but no sprinting until Phase IV

CARDIOVASCULAR EXERCISE:

- Biking, elliptical machine, Stairmaster, swimming, and deep water running

PROGRESSION CRITERIA:

- Dynamic neuromuscular control with multi-plane activities at low to medium velocity without pain or swelling
- Less than 25% deficit for side to side hamstring comparison on Biodex testing at 60° and 240° per second

PHASE IV (Weeks 16+)

Appointments

- Rehabilitation appointments are once every 1-2 weeks

GOALS:

- Good control and no pain with sport and work specific movements, including impact

PRECAUTIONS:

- No pain during the strength training
- Post-activity soreness should resolve within 24 hours

SUGGESTED EXERCISES/TREATMENTS:

- Continue hamstring strengthening – progress toward higher velocity strengthening and reaction in lengthened positions, including eccentric strengthening with single leg forward leans with medicine ball, single leg dead lifts with dumbbells, single leg bridge curls on physioball, resisted running foot catches, and Nordic curls.
- Running and sprinting mechanics and drills
- Hip and core strengthening
- Impact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to other and then 1 foot to same foot
- Movement control exercise beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities.
- Sport/work specific balance and proprioceptive drills
- Stretching for patient specific muscle imbalances

CARDIOVASCULAR EXERCISE:

- Replicate sport or work specific energy demands

RETURN TO SPORT CRITERIA:

- Dynamic neuromuscular control with multi-plane activities at high velocity without pain or swelling
- Less than 10% deficit for side to side hamstring comparison on Biodex testing at 60° and 240° per second
- Less than 10% deficit on functional testing profile.

