

Proximal Hamstring Repair

Phase 1 – Maximum Protection

Weeks 0 to 4

- Brace – wear at all times for 6 weeks
 - 40 degrees knee flexion unless direction by physician
- Toe touch weight bearing (TTWB) for 4 weeks

Goals:

- Reduce pain and inflammation
- Protect the surgical repair

Exercise Progression:

- Initiate passive range of motion at 2 weeks
- Quad and glue isometric activation
- Patellofemoral mobilizations
- Open chain hip strengthening
- Gait training

Weeks 4 to 6

- Brace – wear at all times for 6 weeks
- Progress to weight bearing as tolerated (WBAT)
- Initiate active and active-assisted range of motion

Goals:

- Reduce pain and inflammation
- Protect the surgical repair
- Progress weight bearing on the limb during gait

Exercise Progression:

- PROM/AROM/AAROM in pain-free range of motion
- Initiate weight shifts at 4 weeks to progress weight bearing status and facilitated muscle activation
- Initiate local core stabilization exercises
 - No bridging until 10 weeks

Phase 2 – Progressive Stretching and Early Strengthening

Weeks 6 to 8

- Discontinue brace

- Progress to full ROM as tolerated
- Initiate closed chain strengthening

Goals:

- Full knee extension. By 8 weeks
- Pain-free knee flexion AROM by 8 weeks
- No swelling
- Normal gait pattern

Exercise Progression:

- Initiate hamstring isometric activation
- Initiate bike at 6 weeks
- Normalize gait pattern
- Closed chain double leg strengthening
 - Hold on bridging until 10 weeks

Phase 3 – Progressive Strengthening

Weeks 8 to 12

- Initiate balance/proprioceptive drills
- Progress to unilateral closed chain exercises

Goals:

- Full knee range of motion
- Protect repair
- Normal gait pattern
- Progress limb strength

Exercise Progression:

- Initiate end range stretching
- Initiate elliptical trainer at 8 weeks
- Progress closed kinetic chain strengthening from double limb to single limb
- Proprioception drills
- Initiate double limb bridging at 10 weeks
- Step-up progression

Phase 4 – Advanced Strengthening and Endurance Training

Weeks 12 to 16

- Advance strengthening program
- Prepare for preliminary functional test to perform at 16 weeks
- Progress balance and proprioception

Goals:

- Full knee range of motion
- Protect repair
- Normal gait pattern
- Initiate single leg strength

Exercise Progression:

- Single limb closed chain exercises
- Eccentric loading
- Proprioception drills

Phase 5 – Running Progression and Plyometric Progression

Weeks 16 to 20

- Administer preliminary functional test at 16 weeks for physician to review
- Initiate straight line jogging at 16 weeks if proper biomechanics are demonstrated
- Initiate plyometric training progressing from double limb to single limb
- Advance strengthening program

Goals:

- No swelling
- Full range of motion
- Symmetrical strength and power

Exercise Progression:

- Basic ladder series
- Linear jogging progression
- Plyometric progression

Phase 6 – Return to Sport

Weeks 20 to 24

- Progress plyometric training to multi-direction, change of direction, and deceleration
- Administer return to sport function test prior to 6 month follow-up for physician to review

Goals:

- No swelling
- Full range of motion
- Symmetrical strength and power

Exercise Progression:

- Advance ladder, hurdle, and plyometrics
- Sports specific field/court drills
- Non-contact drills

Criteria for return to play:

- Follow-up examination with the physician
- Pass return to sport function test at >90% (involved vs uninvolved limb)
- Display symmetry and confidence in high-speed cutting, multi-plane plyometric drills, sprinting, and decelerating

Anticipated return to sport:

- 5-6 months for contact and non-contact athletes