

Rehabilitation Protocol: Proximal Hamstring Repair

Date of Surgery: _____

Repair Type: ☐ Acute Repair ☐ Chronic Repair ☐ Allograft Augmentation

Chronic Repair / Allograft: Progression may be slower depending on tissue quality and repair tension. If so, specific changes to the timeline will be noted in the Comments section below.

Protect the Repair: No active hamstring contraction or hamstring stretching early. Avoid combined hip flexion with knee extension (hamstring tension).

Progression is both time- and criteria-based. Outcome measures: LEFS, NPRS. Please contact our office with any questions or concerns.

☐ **Phase I – Protection (Weeks 0–6)**

- **Weightbearing: Toe-touch (20 lbs) with crutches for 6 weeks**
- **Knee Brace:** At all times, **locked at 30° knee flexion** for 6 weeks; may unlock to sit with knee at 90°. Cast cover for showering. Pillow under knee in bed to maintain 30°
- **Precautions: No active hamstring contraction; no active knee flexion against gravity; no hip flexion >60°.** Supine knee extension limited to 0–30° arc
- **Home Exercises**
 - Ankle pumps
 - Short arc quads (no quad sets, due to knee ROM limits)
 - Posterior pelvic tilts
 - Cryotherapy for edema and pain
- **Formal PT (Weeks 4–6):** Begins at 4 weeks within all precautions – gait training (TTWB), scar and soft tissue mobilization, isometric hip abduction/adduction/ER, pelvic tilts and gentle core

☐ **Phase II – Early Strengthening (Weeks 7–12)**

- **Weightbearing: Brace unlocked for weightbearing and weaned as tolerated.** Week 7: 50%; week 8: 75%; week 9: 100% – wean assistive device
- **Precautions: No isolated hamstring strengthening (other than supine isometrics); no hamstring stretching**
- **Range of Motion** – Restore hip ROM (except extension) to normal; manual and self-stretching of hip flexors and adductors; gentle quadruped rocking; stationary bike for ROM (~8 weeks)
- **Therapeutic Exercises**
 - Weight shifting; balance double to single limb on varied surfaces; bilateral heel raises
 - Mini squats (0–45° hip flexion); sit to stand
 - Isometric hip abduction, adduction, ER; clamshells and side-lying abduction, AROM to resistance
 - Short arc quads, progressing to straight leg raises (short to long lever), adding weight as tolerated
 - Prone core and gluteal firing; supine hamstring isometrics
 - **~10–12 weeks:** Active prone knee flexion against gravity; modified side plank
 - Core: hooklying with arm movement, bent knee fall-outs, marching; standing core
 - Scar and soft tissue mobilization
- **Criteria to Progress:** Normal gait; hip ROM (except extension) normal; single leg stance ~10 seconds without compensation; sit to stand with minimal arm support; increased activity without pain

☐ **Phase III – Strengthening (Weeks 13–24)**

- **Precautions: No sport-specific or impact activity;** no increase in symptoms with progression

- **Range of Motion** – Begin gentle hamstring stretching (manual and self); continue hip flexor, adductor, and piriformis/gluteal stretching
- **Therapeutic Exercises**
 - Standing hamstring curls with hip neutral – high reps, high frequency, progressive resistance; manual eccentric training in prone
 - Standing hip PREs (open and closed chain)
 - Squats and leg press: mini to full, bilateral to single leg, concentric and eccentric
 - Step-downs (4", then 6", then 8"); step-ups (4", then 6")
 - Side stepping (band at knees, then ankles); clocks; bridges (double to single leg); hip hiking
 - Core: side, then front planks (knees, then feet); stability ball planks; Pallof press/cable rotations
 - Balance board, ball toss, unstable surfaces, dual-task balance
 - **~20 weeks:** Light bilateral agility – side-to-side and forward/backward hops
- **Criteria to Progress:** Sit to stand without arms; controlled 6–8" step-down; single leg stance >20 seconds; pain-free ADLs

☐ **Phase IV – Advanced Strengthening and Running (Weeks 25–36)**

- **Therapeutic Exercises**
 - Stability ball hamstring curls (double to single leg); Romanian deadlifts (double to single leg, with/without weight)
 - Low-level agility: jump rope, agility ladder, multidirectional lunges, hopping
 - **Jogging progression:** antigravity treadmill if available, then walk/jog intervals
 - Sport-specific/multiplanar: bounding, cutting and pivoting, skips, plyometrics (squat, box, split jumps; A and B skips), hill running
 - Advanced proprioception and dynamic core; reassess monthly
- **Criteria to Progress:** Unrestricted ADLs; strength within 10% of other side; full PROM/AROM; functional and sport testing (Star Excursion, hop tests, dynamometry, agility)

☐ **Phase V – Return to Sport (Months 9–12)**

- **Precautions: No return to sport before 9 months.** No increase in pain with sport-specific activity; monitor for fatigue
- **Therapeutic Exercises**
 - Interval sports program; endurance and power development; proper sport mechanics
- **Criteria for Return to Sport:** Completion of interval sports program without increased pain or fatigue; physician clearance