



## Proximal Hamstring Repair Protocol

*This protocol is meant to serve as a guideline with suggestions for exercises and progression but is not limited to these. It is expected that the therapist will use their professional judgement to progress the patient safely and protect the repair /surgical site.*

### Phase I – Maximum Protection (Weeks 0-6):

#### Goals & Precautions:

- \*\*\*Protect tendon repair\*\*\*
- Reduce pain/swelling (cryotherapy 3x's daily for 15-20 minutes)
- Wound healing
- ROM limitations: Avoid combined hip flexion and knee extension (elongated hamstring)
  - Knee brace locked at 30° most of the time (walking and supine)
  - Knee brace may be move 30-90° of flexion depending on activity or upper body positioning
    - If sitting, knee brace 90° of flexion
- Toe touch weight bearing with brace until 4 weeks post-op
- Limit active hamstring contractions particularly against gravity
- Emphasize protected weight bearing, range of motion restrictions, and importance of home exercise program

#### 0-4 weeks post-op

- Gait training TTWB with crutches, knee brace locked at 30° of flexion
- Ankle pumps
- Glute sets
- Abdominal isometrics
- Posterior pelvic tilt
- Control swelling/pain
- PROM of knee and hip (avoid hamstring lengthening)
  - For hip PROM maintain knee flexion at 90°
  - For knee PROM no hip flexion with knee extension
- Modalities as needed

#### 4-6 weeks post-op

- Gait training: may advance to WBAT with crutches. Begin weight bearing first with the brace locked at 30° and unlock the brace as tolerated as gait progress
  - For chronic retracted tear, keep brace locked at 30° for weight bearing (this should be indicated on PT prescription for this case)
- Continue ROM restrictions above except for walking
- Still avoid combined hip flexion and knee extension
- If wounds well healed without scab, may start aquatic therapy such as pool walking
- Gentle soft-tissue mobilization if wound fully healed
- May start stationary bike if able to sit on bike (no riding out of the saddle)

**Leslie B. Vidal, MD**

Shoulder, Hip, Knee, Sports Medicine • The Steadman Clinic  
181 West Meadow Drive #400, Vail, CO 81657 • (970) 476-1100



## Phase II – Gait, Advance ROM & Early Strengthening (Weeks 6-12):

### Goals & Precautions:

- Continue to be mindful of tendon repair
- Gait training - normalize gait pattern walking and stairs
  - Discontinue brace and wean from crutches gait is normalized
- Limit end range or aggressive lengthened hamstring position
- Avoid dynamic stretching, fast walking, running, hill walking, impact
- Limit loading hip in deep flexion angles
- Focus on core and glute strengthening
- May start hamstring strengthening (no pain with strengthening exercises)

### 6-12 weeks post-op

- Gait training
- Continue or start stationary bike
- Proprioception/balance drills: start with bilateral and progression to single leg
- Begin hamstring strengthening (still avoid elongation of hamstring)
  - Isometrics: hamstring sets 30°, 45°, 60°, 90° (perform sub maximal)
  - Early Isotonic/concentric exercises (**10 weeks**): heels slides, double leg bridge, standing hip extension, standing or prone hamstring curls
- Aquatic exercises (if able)
- Gentle hamstring stretching (not aggressive and avoid end range)
  - Overall hip stretching: hip flexor, hip adductors and abductors
- Gluteus medius strengthening: clamshells, side-lying hip abduction
- Straight leg raise
- Soft tissues mobilizations
- Modalities
- Calf raises
- Core strengthening
  - Hooklying, standing core strengthening

## Phase III – Progress Strengthening (weeks 12-20)

### Goals:

- Increase cardiovascular activities
- Avoid pain during strengthening exercises
- Post-activity soreness resolves within 24 hours
- Control drills and light impact
- Progress proprioception and strength
- Hip and core strengthening
- Good flexibility and ROM

**Leslie B. Vidal, MD**

Shoulder, Hip, Knee, Sports Medicine • The Steadman Clinic  
181 West Meadow Drive #400, Vail, CO 81657 • (970) 476-1100



## 16-24 weeks

- Low impact cardiovascular activities: biking, elliptical, stairmaster, swimming, deep water jog (18-20 weeks)
- Advance hamstring strengthening
  - Physioball curls, bilateral to single leg hamstring machine curls
  - May progress to strengthening in lengthened position
  - Begin eccentric strengthening
    - Single leg forward leans, lowering single leg bridge, prone foot catches, assisted Nordic curls, double leg dead lift
- Movement exercises in a single plane, low velocity
  - Start 2 feet to 2 feet, 1 foot to other, 1 foot to same foot
  - Side stepping, clocks
- Continue hip and core strength exercises: bridges, hip hikes
- Step ups and step downs (start at 4" progress to height 12" around 24 weeks)
- Quad/hamstring strength exercises: leg press, lunges, squats
- Begin dynamic proprioceptive activities: ball toss, unstable surface
- Continue soft tissue mobilization and modalities as needed
- Good flexibility of lower extremity to hip

## Phase IV – Prepare for a return to activities (20 – 30 weeks, weeks 20-24 overlap depending on progress)

### Goals:

- Increase hamstring strength and flexibility
- Greater impact activities and advance proprioception
- Multiplane motion and agility
- Jogging to running
- Progress hip and core strength
- Later stages begin a return to sport

## 20-30 weeks

- Continued hamstring strengthening: increase velocity and reaction in lengthened positions, progress eccentric strength
  - Single leg lean with medicine ball, single leg dead lift, single leg bridge curls, Nordic curls
- Return to jog/run protocol: start interval program of walk/jog
- Hip and core strengthening: planks, bridges, physioball core exercises
- Progressing double and single leg impact
- Continue dynamic proprioceptive activities
- Agility
  - Hops, jump rope, multiple plane lunges, ladder agility
- Plyometrics (25-30 weeks): squat jumps, split jumps, box jumps
- Sport specific drills and agility with return to sport following physician clearance (26-30 weeks)

**Leslie B. Vidal, MD**

Shoulder, Hip, Knee, Sports Medicine • The Steadman Clinic  
181 West Meadow Drive #400, Vail, CO 81657 • (970) 476-1100