

# Open or Endoscopic Proximal Hamstring Repair Post-Operative Protocol



## **Phase I - Maximum Protection**

### **Weeks 0-4**

- Brace- wear at all times for 6 weeks
  - 40 degree knee flexion lock unless directed by MD
- Toe touch weight bearing (TTWB) for 4 weeks

#### **Goals**

- Reduce inflammation and pain
- Protect surgical repair

#### **Exercise progression**

- Initiate passive range of motion at 2 weeks
- Quad and glute 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 inflammation and pain
- Protect surgical repair
- Progress weight bearing on limb during gait

#### **Exercise progression**

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

## **Phase II- Progressive Stretching and Early Strengthening**

### **Weeks 6 to 8:**

- Discontinue brace
- Progress ROM as tolerated
- Initiate closed chain strengthening

#### **Goals**

- Full knee extension/hyperextension by 8 weeks
- Painfree 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 III- 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 IV- 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 range of motion
- Protect repair
- Normal gait pattern
- Increase single leg strength

#### **Exercise progression**

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

### **Phase V- 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 V- Return to Sport**

#### **Weeks 20 to 24:**

- Progress plyometric training to multi-direction, change of direction, and deceleration

- Administer Return To Sport functional test prior to 6 month follow up appointment with MD

Goals

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

Exercise progression

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

Criteria to be released for return to sport

- Follow-up examination with the physician
- Pass Return To Sport functional 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