

## Proximal Hamstring Repair Rehab Program

### Precautions:

- No forceful passive hip flexion or knee extension for 4-6 weeks (no passive hamstring stretch).
- No active hamstring contraction for 4-6 weeks.
- No resisted hamstring exercise for 6-8 weeks.
- NWB for 6-8 weeks.
- Wear brace for 6-8 weeks. (MD will determine when to D/C brace)
- Keep wound dry and clean until stitches are removed at 2 weeks post-op.
- Use raised toilet seat for 2-3 weeks.
- Lie on uninjured side for sitting and when in car.
- Sleep on side with brace on, knee flexed to 90° and pillows between knees.

### 1-1 Weeks Post-Op (Day 1-Day 7):

- NWB on crutches
- Brace fixed with hip in neutral and knee flexed to 90°.
- Wound should be cleaned and inspected for infection daily.

-Ankle Pumps

-Side-lying passive knee flexion from 90° to 110° with hip in neutral flexion

-Side-lying passive abduction/adduction with knee flexed to 110° and hip flexed to 45°

-Side-lying passive hip flexion from neutral to 60° max with knee flexed to 120°

-Supine passive hip flexion from neutral to 60° with knee flexed to 120°

-Prone passive hip IR/ER with knee flexed to 90°

-Use of scooter as per MD orders (usually gets scooter at 1 week-10 days post-op)

-Ice and stim

### 1-2 Weeks Post-Op (8-14 days post-op):

- Use of scooter as per MD orders,
- Brace fixed with hip in neutral and knee flexed to 90°.
- Wound should be cleaned and inspected for infection daily.
- Stitches are removed at the end of 2 weeks if the wound is closed.

-Side-lying passive hip flexion to 90° with knee flexed to 120°

-Side-lying active assistive hip abduction with knee flexed to 90°

-Side-lying active hip abduction with legs supported and knee flexed to 90°

-Supine passive hip flexion to 90° with knee flexed to 120°

-Supine passive knee flexion in prone with hip in neutral

-Supine passive knee extension with hip flexed to 25-30°

-Supine active assistive knee extension with hip flexed to 25-30°

-Supine active knee extension with hip flexed to 25-30°

-Supine SLR hip flexion at 0-30°

-Supine active hip abduction/adduction with knee flexed to 110° and hip flexion to 45°

-Supine active hip flexion from 40-70° with knee flexed to 90°

-Prone or side-lying isometric knee extension with knee flexed to between 90-100°

-Prone or side-lying gluteal set

### 2-3 Weeks Post-Op (15-21 days Post-op)

- Scooter with brace fixed at neutral hip and knee flexed to 45-70°.
- Hamstring massage and scar mobilization may begin with wound closure.

- Weight shift of 25% towards affected side if patient has full knee extension with hip in neutral
- Side-lying active hip abduction with knee extended (no active hamstring contraction)
- Supine passive knee extension with hip flexed from 40-60°
- Supine manually resisted hip abduction with hip flexed to 45° and knee flexed to 110°
- Supine manually resisted hip flexion from 40-70° with knee flexion to 90°
- Resisted SAQ with hip flexed to 25-30°
- Prone active assistive hip IR/ER with hip in neutral

### 3-4 Weeks Post-Op (22-28 days post-op)

- Scooter with brace fixed at neutral hip and knee flexed from 30-45°.

- Weight shift of 25-50% towards affected side if patient has full knee exten. with hip neutral
- Side-lying resisted hip abduction with knee extended (no active hamstring contraction)
- Supine manually resisted hip abduction with hip in neutral and knee fully extended
- Gentle supine passive hip adductor stretch with knee fully extended
- Gentle supine passive hamstring stretch (to 60-80° of hip flexion)
- Prone active hip IR/ER with knee flexed to 90°
- Prone passive quad stretch

### 4-6 Weeks Post-Op

- Scooter with brace fixed at neutral hip and knee flexed from 10-20°.

### 4-5 Weeks Post-Op

- Weight shift of 75% at 4 wks. post-op towards affected side
- Supine manually resisted hip adduction with hip flexed to 45° and knee flexed to 110°
- Seated resisted FAQ

### 5-6 Weeks Post-Op

- Weight shift 100% at 5 wks. post-op towards affected side
- Supine manually resisted hip adduction with hip in neutral and knee fully extended
- Prone active knee flexion with hip in neutral
- Supine passive hamstring stretch to 80-90° of hip flexion

### 6-8 Weeks Post-Op

- Scooter and brace discontinued at the beginning of Week 6.
- Begin with WB on two crutches and progress to WB AT without crutches.
  - Two legged Bridge
  - Lateral Step-up - begin with 2" and gradually increase by 2" increments to 4-6-8"
  - Front Step-up and gradually increase by 2" increments to 4-6-8"
  - One Leg Balance on Airex
  - Bike (put seat high so patient doesn't get excessive hip flexion)
  - Week 8 - Standing resisted hamstring curl
- with hip in neutral or Prone resisted knee flexion with hip in neutral

-PronemanuallyresistedhipIR/ERwithhipinneutralandkneeflexedto90°

#### 8-10WeeksPost-Op(Gradualincreaseofresistanceonhamstringtendon)

- LegExtensionMachine
- Step-Down
- 4Wayhipwithbands
- Physioballtwoleggedwallsquat
- WalkingonTreadmill
- Multi-HipMachine-HipAbduction
- Multi-HipMachine-HipFlexion
- LongSitHamstringStretch
- Activekneeextensionat90-90forhamstringstretch
- PiriformisStretch
- Physioballbridge:twolegswithkneesextended
- Physioballbridge:onelegwithkneesextended
- ActiveFastClawExercise
- Multi-Hip.MachineExtension
- Multi-HipMachineAdduction
- Butterflyadductorstretchwithsolesoffeetogether
- EFX

#### 10-12Weeks Post-Op

FastWalk

- HamstringCurlMachine: Twolegs
- ContractRelaxHamstringStretch
- HamstringRopeStretchwithkneeinfullextension
- LegPressMachine: Twolegs
- JogonTreadmill
- ResistedFastClawwithBand
- LegPressMachine: OneLeg
- Stairmaster
- HamstringCurlMachine: OneLeg
- LateralWalkwithbandaroundankle
- MonsterWalkwithbandaroundankle
- BOSUballcatching-ballinalldirections
- Physioballegcurl: Twolegs
- Physioballwallsquat: OneLeg
- Lunges-beginwithpartialrangesandprogressofulllungesas tolerated
- Isokinetics-Concentric/Concentric-  
beginwithhighspeed,progressstomediumandslowerspeedsastolerated

#### **CRITERIA TO START PLYOMETRIC/RUNNING/AGILITY PROGRAM**

- Landwithgoodcontrolandcorrectformonmatjumps
- MMTatleast5/5,ROMEequalto uninvolvesideoratleast0-125
- Normalgaitpatternatleast20minuteswithout symptoms
- LegPresstestwithin75-80%ofcontralateralLE
- Hamstringandquadricepstrength70%oftheinvolvesideisokinetically,

- Lateral step test within 75-80% of contralateral LE
- No pain, crepitus, edema or giving way
- Clearance from MD

#### 12-14 weeks

- Lateral Shuffle
- Carioca
- Sport Cord Running-Forward, Laterally, Backward
- Physio Ball Leg Curl-One Leg
- Single Leg Bodyweight Squat
- Standing Touch Drill
- Fast Feet
- Agility Ladder Drills
- Figure 8
- Butt Kicks
- Skipping
- High Knee Run
- Jog/Sprint on Treadmill
- Walking Lunges
- 2 Leg Deadlifts with DB

#### 14-16 weeks

- Standing One Leg Deadlift with MB
- Bunny Hop
- Alternate Leg Forward and Back Over Line
- Step Stool Touch Drill
- 2 Leg Line Jump (forward, backwards, sideways, diagonal)
- Power Skip
- Forward Run over small green hurdles
- Lateral Run over small green hurdles
- High Knee Crossover Run
- Heidens
- Zig Zag Through Cones
- 1/2 Foam Roller Star Drill
- Airex II leg takeoff/land on one foot
- 3 Way Lunge Matrix
- Isokinetics Concentric/Eccentric

#### 16+ Weeks Post-Op

- 2 Leg Jump over Cone-Forward and lateral
- Lazy W-Forward and back pedaling
- T-Drill
- One Leg Hop and stick landing
- 2 Leg Tuck Jumps in Place
- Skipping into one leg power vertical
- Split Squat Jumps in Place
- 1 Leg Deadlift with Medicine Ball
- Sprint 50%, gradually progress to 75%, 90% and 100% as tolerated

- II Leg Line Jump (forward, backward, lateral)
- Bounding
- One Leg 3 Consecutive Hops for Distance

### **CRITERIA TO RETURN TO SPORTS**

- Completion of running and agility/plyometric program without symptoms with good form
- Quadriceps strength 85-90%
- Quad to quad to body weight ratio:  
Males: @ 180°/sec 65-75%, Females 50-60%; @ 300°/sec males 45-55, females 35-45
- Hamstring strength 85-90%
- Hamstring to quadriceps ratio is 65%
- Good balance and proprioception
- Functional tests (single leg hop for distance, single-leg triple crossover hop, 6 meter timed hop) is 85% compared to opposite LE