# Proximal Hamstring Repair

# **Phase I - Maximum Protection**

### Weeks 0-4

- Brace- wear at all times for 6 weeks
  - o 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

# <u>Goals</u>

- o Reduce inflammation and pain
- Protect surgical repair
- o 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

- o 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
- o 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
- o 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

- o 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

# <u>Goals</u>

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

# Exercise progression

- o 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:

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