

**ENDOSCOPIC PROXIMAL HAMSTRING REPAIR  
REHABILITATION PROTOCOL**

Chase D. Smith, MD

**Precautions:**

- X-Act ROM Brace for 4-6 weeks (per physician recommendation)
- WBAT with crutches for 2-4 weeks (per physician)
- Avoid active hamstring strengthening/hamstring stretching

**I. Phase I – Acute Phase (weeks 0-6)**

Goals:

Gradually improve weight bearing and ROM  
Diminish pain and inflammation  
Retard muscle atrophy and strength loss  
Enhance healing of repair

- Cryotherapy
- e-stim for pain/swelling
- Teach pt. to transfer safely
- Gait training; restore normal gait

**Exercises:**

- Gentle hip flexor, quad, calf, hip adductor stretches
- Quad sets
- Ankle strengthening
- Isometric hip abd/add
- Initiate core stabilization exercises
- ROM: Gradually increase hip flexion (with knee flexed)

**II. Phase II – Subacute Phase (Weeks 6-12)**

Goals: Improve flexibility and ROM  
Enhance muscular strength and endurance  
Promote healing  
Control any inflammation and pain

- Modalities as needed  
Heat, ultrasound, ice
- Soft tissue mobilization

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**Exercises:**

- Initiate isometric hamstring contractions (knee flexed to 45 degrees)
  - Progress to isotonic strengthening
- SLR's
- Knee extensions
- Backward lunges
- lateral step overs
- forward and backward step overs
- calf raises
- bridges
- wall squats
- lateral lunges
- leg press
- initiate proprioception drills
- initiate pool exercises, pool running or alter g running (with physician approval)

**III. Phase III – Dynamic Phase (Week 12-16)**

- Goals: Improve dynamic flexibility of hamstrings  
Normalize static flexibility  
Normalize muscular strength

**Exercises:**

- active warm-up
- stretch all major LE muscle groups
- continue strengthening exercises listed above
- jogging on dry land
- Initiate light ballistic maneuvers when appropriate
  - plyometric leg press
  - plyometric front lunges
  - scissor jumps
  - scissor box jumps
  - side to side box jumps
  - skip lunges
  - fast speed lateral step overs
  - forward knee high running
- stretch after workout
- cryotherapy

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IV. **Phase IV – Sports specific and agility phase (Weeks 16 and beyond)**

Goals: Normalize ballistic flexibility  
Normalize muscular strength and agility  
Gradual return to sports participation

**Exercises:**

- Active warm-up
- Stretch all LE muscles
- Continue strengthening program
- Continue selected ballistic drills
- Initiate sport specific program
- side shuffles
- forward running
- backward running
- progress to sprints
- running and cutting drills
- gradually increase intensity of running (jog to run to sprint)
- stretch following
- gradual return to sports participation