

Proximal Hamstring Rupture: Physical Therapy Protocol

Phase 1- Immediate Rehabilitation

Goals:

- Protection of the repaired tissue
- Restore ROM within guidelines
- Prevent muscular inhibition and gait abnormalities
- Diminish pain and inflammation

Precautions:

- Patients will be toe-touch weight-bearing for 6-8 weeks post-op
- Do Not Push Through Pain or Pinching, gentle stretching will gain more ROM

ROM Guidelines:

- PROM of knee and hip begins at week 2
- Gentle AROM initiated at week 4

Phase 1: Initial Exercises and Tissue Flexibility

Stretches:

NO Hamstring stretches for 6 weeks

Calves, Passive stretches at 2 weeks: quad, hip flexor

Soft Tissue Massage:

Scars, TFL / ITB, Quads, Gluteals, QL, Lumbar Paraspinals, posterior thigh, and Calves

Week 1-2 Ex's

Ankle Pumps, Gluteus squeezes, Quad squeezes, Transverse abdominals, gentle Hip Abd submax isometrics using a belt or Pilates ring, lumbopelvic stabilization, patellar mobilizations

At 2 weeks: ankle strengthening, passive calf stretching with 0° hip flexion

Week 3-4 Ex's

Progress PROM 0-45 at the hip Initiate AROM at week 4, but no hamstring contraction 4 weeks: prone quad strengthening, sidelying hip abd/add, single and double-limb balance and proprioception, lumbopelvic stabilization (PRE's)

Week 5-6 Ex's

Progress PROM at the hip 0-90*

d/c brace after 6 weeks

progress to FWB

Isometric exercises

6 weeks: stationary bike, when obtained 90° hip flexion, supine SLR's

Phase 2 – Intermediate Rehabilitation

Criteria for progression to Phase 2:

Full Weight Bearing Must Be Achieved Prior To Progressing To Phase 2

Goals:

Protection of the repaired tissue

Restore Full Hip ROM – ROM must come before strengthening

Restore Normal Gait Pattern

Progressive Strengthening of Hip, Pelvis, and LE's

TREADMILL USE with appropriate gait pattern

Precautions:

No forced (aggressive) stretching of any muscles

Avoid any terminal ranges of motion in exercise

Phase 2: Intermediate Exercises

Week 6-7 Ex's

Continue gentle stretches

Normal gait training

Aqua therapy

Isotonic exercises begun with limited ROM

Pelvic floor and core strengthening

Closed chain exercises initiated

ROM exercises

Isotonic strengthening under load

Beginning at 6 weeks and progressing through 12 weeks: WB exercises (mini lunges, side stepping with resistance, mini squats, grapevines, etc) aquatic therapy, hydroworx pool for early return to running

Week 7-8 Ex's

Isotonic strength training progressed
Dynamic training advanced
Isokinetic work and dynamic stretching

Phase 3 – Advanced Rehabilitation

Criteria for progression to Phase 3:

Full ROM
Pain free Normal gait pattern
LE MMT minimum 4/5

Goals:

Full Restoration of muscular strength and endurance
Full Restoration of Pt's Cardiovascular endurance

Precautions:

No contact activities
No forced (aggressive) stretching

Phase 3: Advanced Exercises

8-10 weeks

Lunges, Side to side lateral slides with cord, Forward / Backward running program, light Plyometrics, and resisted lateral walking
Progress running
Sideways agility drills

Phase 4 – High Impact/RTS/RTW:

Criteria for progression to High Impact Training:

Hip strength all 5-/5
HS strength 4+/5
Cardiovascular endurance nearing pre-injury level
Demonstrates proper squat form and pelvic stability with initial agility drills

Develop customized strengthening and flexibility program based off of Patient's sport and/or work activities

Phase 4: Sport Specific Training

Initiation of dry land jogging

MMT compared bilaterally at 60°, 120° & 180° (Isokinetic testing if available)

Sport Specific drill work

 Z cuts, W cuts, Cariocas

 Agility drills

 Plyometrics

Gradual return to sport

Return to sporting activities is permissible when isokinetic testing is 80% of the unaffected side, or both 5/5 with all LE MMT's. Similar to an ACL reconstruction, this will typically occur between 6 and 9 months.