

Physical Therapy Prescription Hamstring Strain

Dx: (LEFT / RIGHT) Hamstring Strain

Phase 1

Goals

1. Protect healing tissue
2. Minimize atrophy and strength loss
3. Prevent motion loss

Protection

Avoid excessive active or passive lengthening of the hamstrings that cause pain
Avoid antalgic gait pattern

Therapeutic exercise (performed daily)

- Stationary bike
- Sub maximal Isometric at 3 angles (90°, 60°, 30°)
- Single leg balance
- Balance Board
- Soft tissue mobilization (STM)/Instrument assisted (IASTM)
- Progressive hip strengthening
- Pain free isotonic knee flexion
- Active sciatic nerve flossing
- Modalities PRN

Criteria for progression to next phase

1. Normal walking stride without pain
2. Pain-free isometric contraction against submaximal (50%-75%) resistance during prone knee flexion (90°) manual strength test

Phase 2

Goals

1. Regain pain-free hamstring strength, progressing through full range
2. Develop neuromuscular control of trunk and pelvis with progressive increase in movement speed preparing for functional movements

Protection

Avoid end-range lengthening of hamstrings if painful

Therapeutic exercise (performed 5–7 d/wk)

- Stationary bike
- Treadmill at moderate to high intensity (progressive increasing intervals), pain-free speed and stride
- Isokinetic eccentrics in non-lengthened state
- Single-limb balance windmill touches without weight
- Single leg stance with perturbation (eg ball toss, reaches)
- Supine hamstring curls on Swiss ball
- STM/IASTM
- Nordic hamstring exercise as tolerated. Must be able to come back up to starting position.
- Shuttle jumps
- Prone leg drops



Travis G. Maak, M.D.
590 Wakara Way
Salt Lake City, UT 84108
Tel: (801) 587-7109
Fax: (801)587-7112
Lic. # 8234797-1205

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- Lateral and retro bandwalks
- Sciatic nerve tensioning

Criteria for progression to next phase

1. Full strength (5/5) without pain during prone knee flexion (90°) manual strength test
2. Pain-free forward and backward jog, moderate intensity
3. Strength deficit less than 20% compared against uninjured limb
4. Pain free max eccentric in a non-lengthened state

Phase 3

Goals

1. Symptom-free (eg, pain and tightness) during all activities
2. Normal concentric and eccentric hamstring strength through full range of motion and speeds
3. Improve neuromuscular control of trunk and pelvis
4. Integrate postural control into sport-specific movements

Protection

Train within symptom free intensity

Therapeutic exercise (performed 4–5 d/wk)

- Treadmill moderate to high intensity as tolerated
- Hamstring dynamic stretching
- Isokinetic eccentric training at end ROM
- STM/IASTM
- Plyometric jump training
- 5–10 yard accelerations/decelerations
- Single-limb balance windmill touches with weight on unstable surface
- Sport-specific drills that incorporate postural control and progressive speed

Criteria for return to sport

1. Full strength without pain in the lengthened state testing position
2. Bilateral symmetry in knee flexion angle of peak torque
2. Full range of motion without pain
3. Replication of sport specific movements at competition speed without symptoms

Frequency & Duration: (circle one) 1-2 2-3 x/week for _____ weeks

**Please send progress notes

Physician's Signature: _____