

PT PROTOCOL

Hamstring Strain — Non-Operative

Rehabilitation Protocol

Weight-Bearing Status

ONLY IF DIFFERENT FROM PROTOCOL BELOW

Most hamstring strains are managed weight-bearing as tolerated throughout. A more protected status (e.g., partial weight-bearing or an assistive device) may be indicated for a severe (grade III) tear or significant myotendinous disruption limiting gait — check here if different from the protocol below.

☐ Non-weight-bearing

☐ Toe-touch / partial weight-bearing

☐ Weight-bearing as tolerated

Precautions: _____

1

Weeks 0–2

Protect healing; no hamstring stretching, quad/glute sets only

2

2–4 Weeks

Gentle pain-free hamstring stretch begins; light strengthening

3

4–8 Weeks

Full WB, active stretching; progressive strengthening, walk/jog intervals

4

8–12 Weeks

Eccentric loading progression; running, machine strengthening

5

12+ Weeks

Return to sport; Nordic curls, plyometrics, sprint/agility progression

Milestones above are goals, not guarantees; timelines vary considerably by strain grade, injury location (muscle belly, myotendinous junction, or tendon), and progression is criterion-based.

Phase 1 Weeks 0–2

Weight-Bearing: As tolerated.

Range of Motion

- Active-assisted and passive hip/knee flexion only.
- Do not stretch the hamstring (no trunk flexion or knee extension stretch) — avoid any stretch or strain sensation at the injury site.

Therapeutic Exercises

- Quad sets and glute sets — must be pain-free and well-controlled before hamstring/glute strengthening advances.
- Upper body/core work, avoiding positions that lengthen the hamstring.
- Soft tissue work/manual therapy as directed by your physical therapist.

Phase 2 Weeks 2–4

Weight-Bearing: As tolerated.

Range of Motion

- Active and passive hip/knee flexion.
- Gentle, pain-free, non-weighted hamstring stretching may begin (e.g., supine with a strap) — the first point hamstring stretching is introduced.

Therapeutic Exercises

- Low double-leg bridge, side-lying hip abduction, standing calf raises, uninvolved-limb strengthening.
- Cardio: stationary bike, progressive level-surface walking, elliptical by week 4 if pain-free.

Phase 3

Weeks 4–8

Weight-Bearing: Full, without an assistive device.

Range of Motion

- Progressive active hip/knee flexion; active stretching of all muscle groups is now permitted.

Therapeutic Exercises

- Double-leg bridge with band/ball squeeze variations, plank with alternating leg lifts, side plank, straight leg raise, prone hamstring curls, hip extension.
- At 6 weeks, add: single-leg bridge, ankle-weighted leg lifts, wall slides, clamshells, partial squats, step-ups/downs.
- Cardio: bike, swim, progressive walking; walk/jog intervals may begin at week 6 if range of motion and strength are symmetrical.
- *Progressing to running generally requires hamstring strength at least 80–90% and glute/quad strength at least 90% of the uninvolved side, with a pain-free single-leg hop.*

Phase 4

Weeks 8–12

Weight-Bearing: Full.

Therapeutic Exercises

- Dynamic and static hamstring stretching; machine-based strengthening (leg press, hip abduction, hamstring curl, leg extension); single-leg closed-chain exercises; resisted step-ups.
- Eccentric hamstring progression: double-leg ball roll-outs progressing to single-leg, and eccentric-only progressing to eccentric/concentric; double- then single-leg deadlift variations.
- Cardio: increasing walking speed/distance on uneven surfaces, continuous jogging, then interval running.

Phase 5

Weeks 12+

Weight-Bearing: Full. Neoprene support optional, if helpful.

Therapeutic Exercises

- Continued strengthening, avoiding hamstring overload: single-leg deadlift with band resistance, reverse lunge on slider, kettlebell swings.
- Short-range Nordic hamstring curls, progressing range toward the ground.
- Plyometrics: double-leg jumps progressing to single-leg, then resisted.
- Agility ladder drills, sprint progressions, and deceleration training.
- *Return to sport when hamstring, glute, and quad strength are at least 95% of the uninvolved side, hop testing is symmetrical, and acceleration/deceleration/change-of-direction control is good – per your surgeon or physical therapist.*