# Don’t Get Hamstrung!

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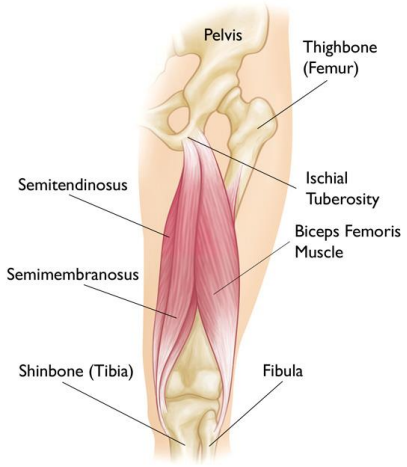
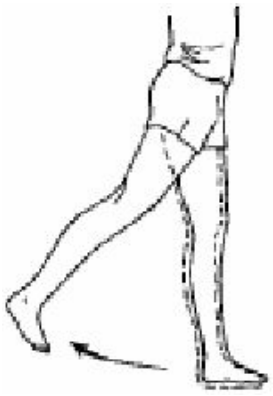
Hamstring issues are one of the most common (and most frustrating) running injuries seen in a physical therapy clinic. The hamstring muscle group is comprised of 3 muscles on the back of each thigh. Two are located more medially (along the inside) and 1 is located more laterally (along the outside). They originate on the ischial tuberosities (the “sit bones”) of the pelvis where the thigh meets the buttocks. They insert behind or beside the knee. The hamstring muscles are responsible for flexing your knee and assisting with extension of the hip. They are commonly injured when you are striding out and extending the knee.







Pain in the hamstring region can be difficult to overcome for a number of reasons. A common misconception with hamstring injuries is that the issue is solely related to a lack of flexibility. It is important to understand that pain in this region can be coming from a number of different sources other than a simple muscle strain. Some of these possible sources include sciatic nerve irritation, piriformis tightness, a pinched nerve in your lower back, or simply poor running form which can overwork your hamstring muscles. A common story from a runner with hamstring issues describes a scenario where they have rested from running for several weeks but the pain is still there when they resume running. Another scenario is the runner who is utterly exasperated by the length of time they have been dealing with a painful injury. In both cases they typically don’t know how to get to the source of the problem. If there are longstanding muscle imbalances (e.g. weakness in the gluteals and hamstrings and/or overly tight or strong hip flexors and quadriceps) the symptoms are likely to persist. Runners with chronic hamstring injuries are also notorious “overstriders”. They have improper running form, take too long of a stride and don’t keep their feet underneath their body. Checking your cadence is a quick and easy screen for this. Without addressing running form or muscle imbalances you are likely to continue to suffer. These individuals are often “overstretching” as well. Constantly pulling on

the muscle can actually aggravate it more. Initially a better approach is massage, rolling and gentle strengthening. Of course flexibility is important, but you should avoid stretching an injured muscle too vigorously. Once the area heals then you can work on more gradually lengthening these tight tissues. A comprehensive approach which also addresses the mobility of the spine and pelvis can yield better results. So whether it's a strained hamstring, chronic tendinitis (inflammation of the tendon where it attaches to your pelvis) or one of the other scenarios described above, start with this general approach:

1) Daily rolling with a foam roller, massage stick or other device of your choice 2-3 minutes over the entire hamstring with additional focus on the painful area.
2) Basic strengthening including light hamstring curls, body weight squats and bridging (these should all work the muscle but not cause pain) with progression to dynamic strengthening as illustrated in last months' article regarding hip exercises. Strengthening is crucial. It stimulates the muscle-tendon unit to repair itself. You may need to start with very light resistance. Do not work through pain greater than a 2/10 on the pain scale or you are likely aggravating the situation.
3) Avoid running in pain. Reduce mileage and focus on form. Shorten your stride, stand up tall and work on gradually increasing your cadence. This is not a time for speed work!

Understand that hamstring injuries can take months to fully heal. (And the clock starts when you initiate an appropriate program, not necessarily from the time of the initial injury). Injuries in the middle of the muscle typically heal quicker than those at either end of the muscle near the tendon attachments.

If you don't see immediate improvements, consider a comprehensive approach in physical therapy. This includes modalities such as laser or ultrasound therapy, massage, home exercises, and progressive strengthening that is properly dosed in a controlled setting. It is also helpful to have some guidance on your running progression and an analysis of your form with a qualified professional. To prevent hamstring injuries, choose a similar approach. Perform weekly strengthening exercises, practice good running form, and be consistent with daily rolling and stretching.