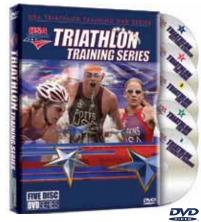
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Medically Speaking



AVOIDING AND RECOVERING FROM A HAMSTRING STRAIN

BY JORDAN D. METZL, MD

Justin, a 30-year-old triathlete, comes into the office complaining about his hamstring. "Doc," he says emphatically, "this stupid hamstring is driving me nuts! I can't seem to push off, I can't do any speed work. Every time I run or cycle hard, I feel this ache in the back of my leg."

What Justin describes—an ache or discomfort when pressure is applied to the hamstring or when the muscle group is actively loaded —has been the downfall of many a runner and triathlete.

The hamstring is a combination of the medial and lateral muscle groups that originates at the ischial tuberosity, part of the pelvis, and run along the back of the leg until they insert just below the knee. Since the muscle group spans both the hip and knee, there are two sets of forces that the hamstring is subjected to, both from hip and knee motion.

Unfortunately, the hamstring muscles aren't ideal for sport—both the proximal hamstring muscles near the ischial tuberosity (sit bones) and the insertion near the knee have a poor blood supply. This translates into slow healing rates for muscle strains that occur proximally, the notorious "pain in the butt" hamstring strain, as well as the distal hamstring strain near the knee. The middle, meaty portion of the hamstring, the belly of the muscle group, has an excellent blood supply and heals quickly.

When the hamstring is injured, the key is to first recognize the injury. The hamstring strain is typically the result of too much speed or hill work, and most importantly, not paying enough attention to the cues of pain. Often during the run portion of a race, when muscles become dehydrated and

susceptible to injury, pushing too hard on a hill or trying to pass the athlete just ahead results in a hamstring strain.

When a hamstring strain happens, slow down and don't make things worse by continuing to press ahead full force.

If the finish line isn't too far, it's fine to slow up and finish the race, but proximal hamstring injuries particularly are a good reason to consider a DNF. It's generally not

worth the months of aggravation that follow a bad proximal hamstring strain by pushing through this injury.

For immediate treatment, ice is key, then gentle stretching after a few days, followed by hopeful waiting. If the pain persists, see your doctor or get either an MRI or ultrasound. Gradual return to activity, particularly speed and hill work, is key going forward.

For prevention, the point can't be made enough: Strong gluteal and hamstring muscle groups are essential to preventing this injury. Squats, lunges and planks will help strengthen the muscles in and around the hamstring. Isolated hamstring curls can work to strengthen the hamstring alone, but they do little for the gluteal muscles and others that are equally important. Multi-muscle strength exercises such as lunges and plyometric squats are better ways to prevent injury.

Newer treatments such as PRP (platelet rich plasma) may offer some hope for those suffering from a lingering hamstring injury. Many sports medicine doctors are involved in clinical trials to assess the efficacy of this new method of treatment. At this point, PRP, no matter what the celebrity endorsement, is probably a treatment for a muscle or tendon injury that fails the normal healing response of about six to eight weeks.

As for Justin, he was eventually diagnosed with a proximal hamstring strain. Through strength and hard work, he is now pain-free and running well.

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