

Q&A: Stretching your hamstring

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I am a very active person. I visit the gym and run regularly. Although I have been able to avoid any major injuries, I find myself constantly stretching my hamstrings. It seems no matter how flexible I get, they still feel tight. What else can I do?

Having an active lifestyle is important to achieving [long-term health](#) and wellness, so congratulations on maintaining regular exercise—and avoiding injuries. Stretching has probably helped protect you from injury.

Stretching is an important component of any exercise program. Most aerobic and strength training programs inherently cause your muscles to contract and tighten. Stretching can increase flexibility and improve your joints' range of motion, helping you move more freely. Stretching after you exercise also can boost circulation.

It is not uncommon to see patients like yourself who have a constant urge to stretch their hamstrings, a [muscle](#) on the back of the thigh that bends the knee. These patients state that they feel the desire to stretch frequently to get rid of a [sensation](#) that their muscle feels tight or stiff. This type of stretching is known as static stretching—when we passively hold a muscle in an elongated position in attempts to lengthen it from its previous state.

More often than not, stretching only provides short-term relief, and then the tight sensation comes right back. The reason for this has to do with how your body is triggering you and with the way your nerve and pain pathways work.

Studies have shown that this feeling of stiffness does not always correlate with lack of mobility or flexibility in the affected area. Instead, the stiffness is a message from the [nervous system](#) alerting the [brain](#) on the current state of your body. In essence, your body is hurting, so the nervous system is sending this message in hopes of getting your attention to slow your movements. In some cases, the sensation of tightness and stiffness may signal an injury, but usually it is only an alert from the body in an attempt to help you avoid potential injury.

Pain nerves do not exist in the body. Instead, the nerve endings send messages about its environment to the brain. It may tell the brain it is experiencing sensations such as warmth, vibration or light touch, which can be considered potential threats. These messages are taken from the nerve endings, up the spinal cord and into the brain. At this point, the brain weighs the importance of the information, and decides that it is harmful or dismisses it. If it decides that the environment is harmful, the brain creates pain sensations at that location. Relating this back to stiffness, this sensation is simply a constant message being sent from the [nerve endings](#) about that muscle, and the brain is deciding that the message could potentially be harmful. As a result, the brain is creating discomfort in that area.

Over time, however, when the affected area of the body is strengthened, the nervous system becomes less concerned about injury because it no longer perceives weakness as a potential threat.

Patients with hamstring issues often get more long-term relief from tightness with specific stability exercises as opposed to stretching alone. Consider adding activities such as squats or dead lifts.

Be aware that there is another common pain generator that often sends people to [physical therapy](#): the piriformis muscle. This muscle is beneath your glutes and works to turn your hip outward. Pain in this muscle can create a constant grabbing sensation in the glute, and can cause you to have a sore lower back and hamstrings. Typically, this can be treated with stretches where you pull your knee up toward your opposite shoulder.

In general, when you're stretching, keep it gentle. Breathe freely as you hold each stretch for around 30 seconds. Try not to hold your breath. Don't bounce or hold a painful stretch. Expect to feel tension while you're stretching. If you feel pain, you've gone too far.

Remember that the sensations felt in your body are your brain's attempts to tell you to strengthen, move or behave in a different way. These sensations serve to drive your behaviors and do not necessarily correlate with the actual biomechanical state of the [body](#). As a result, perceived stiffness does not always mean that the muscle is tight or needs to be stretched. Oftentimes, the muscle needs strengthening to help bring stability to the tissue. You may find this guide to stretching useful.

If you're continuing to experience tension or pain, and stretches do not relieve this tension or [pain](#), consult with a physical therapist, orthopedist or sports medicine specialist. These [health care providers](#) can identify the underlying cause of your constant feeling of tightness and, if necessary, provide you with individualized strengthening exercises to improve your symptoms.

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