

Hamstring Flexibility and Lower Back Pain

The lower part of our spine (the lumbar region) is the area where most people experience back pain. This part of our back carries the weight of our body, so the muscles are prone to strain. Stretching our hamstring muscles on the back of our legs can help prevent, treat, and relieve lower back pain. What's more, effective hamstring stretches and hamstring injury treatments are vital to the overall health and condition of our lower back muscles.

The role of leg stretching and hamstring flexibility in maintaining low back health may not seem obvious. So, let me explain.

Hamstring Flexibility & Spinal Alignment: The Low Back Pain Connection

Our spine is made up of vertebrae that stack on top of one another. When it is in neutral alignment, our spine is healthy, strong, and shaped like the letter 'S'. Our abdominal muscles play a leading role in keeping our lower spine in neutral. That's why back exercise programs must also strengthen our abdominals. However, since our lower back is acted upon by all of the muscles connected to our lower torso, strong abdominals alone are not enough to keep our lower backs healthy and pain free.

Our hamstrings, located at the backs of our upper legs, are a group of three muscles called the semimembranosus, semitendinosus and biceps femoris. These muscles attach to the lower part of our pelvis and our lower leg bone just below our knee joint. The hamstring/pelvis attachment at the tops of our hamstrings allows tight hamstrings to pull on our pelvis and cause a rounding of our lower back. Over time, this creates a postural imbalance that leads to back pain. Put another way, if our hips are pulled backwards by tight hamstrings, our lower back becomes rounded and our spine loses its 'S' shape. This non-neutral spinal alignment results in lower back pain.

Improving and maintaining the flexibility in our hamstrings can remove tension from our pelvis and allow it to return and remain in its natural position. This allows our spine to resume its neutral 'S' shape where it is strong and healthy. The flexibility of our hamstrings and their contribution to relief from lower back pain and injury requires regular hamstring stretching.

Guidelines for Stretching Safety

In addition to keeping our backs healthy, stretching is one of the most effective techniques for improving our day-to-day function and athletic performance. It is also very helpful in getting rid of annoying chronic and sports injuries. But, like many activities, stretching can be dangerous, harmful, and ineffective if not done correctly. So, for safety and for maximizing the benefits of our stretching program, it is important that we follow these rules and guidelines:

- Breathe. Holding our breath makes us more tense and can raise our blood pressure, which is particularly detrimental if we suffer from high blood pressure. The deeper we breathe, the more relaxed we become, and the deeper and longer we will be able to stretch.
- Never force a stretch beyond the point of mild discomfort. Stretching tight muscles is uncomfortable, but we should never feel sharp or sudden pain. If we do, we need to stop immediately because we are pushing ourselves too far.
- Be consistent. Stretching for a few minutes each day will gradually build our flexibility and range of motion far better than stretching less often for a longer block of time.
- Wear loose comfortable clothing. In addition to it being difficult to stretch if our clothes are tight and restrict our movement, the discomfort prevents us from relaxing.
- Time ourselves and try to increase our time in each stretch by a few seconds each week. If necessary, we can start with 10-15 seconds and extend this by 5 seconds each week until we can hold a stretch for at least 30 seconds. One minute is even better.

Your Stretching Program: Learning Hamstring and Other Stretches

You can learn safe and effective stretches in our Group Exercise classes (particularly Yoga and Pilates). However, if you have specific goals or needs, you would greatly benefit from working with one of our Certified Personal Trainers. They will help you develop a personal stretching program as well as provide you with one-on-one guidance and instruction in performing the stretches.

Reference: Thestretchinghandbook.com 2009