

Sports Medicine Fitness Self-Myofascial Release Foam Roller Full Body Protocol

How it works:

Studies show that traditional stretching does not decrease your chance of injury. Furthermore, some studies have shown that static stretching can actually increase your chances of injury. Why? Physiologically, it is impossible to stretch a muscle where you want the stretch to occur. You want the lengthening of the muscle to occur in the muscle belly (middle). However, most of the static stretching exercises lengthen the muscles at the muscle-tendon junction. That will decrease the stability of the muscle and the joint that the muscle crosses.

Self-myofascial release (SMR) on the foam roller, on the other hand, offers safe benefits and helps to breakdown the soft tissue adhesions and scar tissue in the fascia and muscles. As a physician, I never instruct patients to statically stretch muscles without foam rolling first. Why? As we age our muscles change in two ways... length and density. Length is easy to understand, but the density can be the limiting factor decreasing the length of the muscle. Think of density as 'knots' or trigger points in the muscles or fascia. The trigger point can be pain producing by itself and it can affect the ability of the muscle to function properly. That's because trigger points are isolated dense muscle injuries. A trigger point can be latent, which would be a tender spot in the muscle. Or, the trigger point can be active, which can have the ability to radiate to other regions. Typically dense areas in muscles and fascia will inhibit the muscle, thus decreasing the ability of the muscle to absorb force.

Abnormal fascia and densification in muscles is one of the leading causes of chronic pain, reduce flexibility and decrease in athletic performance. SMR on the foam roller offers an effective, inexpensive, and convenient way to both reduce the densification and scar tissue accumulation that has built up over the years. Just like stretching, foam rolling doesn't yield marked improvements overnight; you'll need to be diligent and be consistent (although you'll definitely notice quick benefits).

How to do it:

These techniques are actually very simple to learn. Roll at a slow pace and stop and "park" on the most tender spots ("hot spots"). Take three slow deep breaths, and then roll over the hot spot 4-8 times and move on to other areas. Eventually, you will not have sore or painful areas, in which case you roll 10 repetitions as maintenance and prevention. Use the foam roller as a warm up prior to physical activity and afterwards as muscle recovery.

In order to increase the pressure on the soft tissues, simply apply more of your body weight on the roller. The easiest way to do this is by changing from working both legs at once to "stacking" on of your legs on top of the other to increase pressure. Your first time foam rolling may reveal many extremely tender areas that you did not know existed. In this case, you may not feel comfortable 'parking' on the spots. Just roll through the 'hot spots' for 10 repetitions and move on. As you get more comfortable with SMR, then you can 'park' on the 'hot spots' and bear down with more of your body weight. You'll definitely want to play around with the roller to see what works best for you. Be careful to avoid boney prominences, though.

It is recommended to start distal (lower legs) and work towards the spine. The following protocol takes you through my recommended flow for the entire body. For leg muscles, start in the muscle belly (middle) and roll. Then move distal (away from the spine) and roll. Then, work your way up to the proximal (closest to the spine) portion of the muscle. The strokes should be 2-6 inches in length. Never foam roll the entire length of the long leg muscles all at one time. Break up the extremity muscles into at least three segments (middle/ distal (lower)/ proximal (upper).

Always remember there is a cumulative effect with foam rolling. Foam rolling should take approximately 10 minutes for the entire full body foam rolling protocol. It's simple, quick, and effective if performed 2-5 times per week.



1. Balance on your hands. Start in the muscle belly. Work down to the Achilles. Work back up to the upper portion of the calf. Toe in and toe out can reveal some more 'hot spots' in the upper portion of the calf. Stack one leg on top of the other to increase loading.



3. Isolate the right glute (pictured above) by crossing the right leg over the left. Use your hand and foot to stabilize. Roll up and down through the entire glute/ piriformis muscles. To get deeper, take tension off the glute by straightening the right leg and roll the glute again.



5. Put the foam roller under your lower back and roll up and down. Rotating to the right or left sides is an easy way to search in the Quadratus Lumborum (Q.L) muscle. Rotating can find more "hot spots". If you have lower back pain, do not rotate and be extremely cautious. Be sure to tuck your chin in during this exercise.



2. Balance on your hands. Start in the middle muscle belly. Work towards the knee. Work back up to the upper portion of the hamstring. Toe in and toe out to search for 'hot spots' on the sides. To increase pressure, stack one leg on top of the other.



4. Lean and rotate your upper body towards the right glute medius by putting more pressure on your planted arm. Take your time with this exercise, because this muscle is notorious for "hot spots". Repeat glute max/ piriformis and glute medius on the other side.



6. Folding your arms across your body pulls your shoulder blades away from the spine. Roll up and down in the thoracic spine. You may get some audible movements of the thoracic spine as well. Also, you can put your hand behind your head, prisoner style, for neck support as an alternative. That can be helpful if you have experienced neck pain in the past.