

FOAM **ROLLING** for **RUNNERS**





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Overview

Have you ever had an injury that continually resurfaced or one that refused to go away?

Do you feel that you have been unable to reach your full potential because you are unable to complete a proper training cycle due to downtime caused by injury?

Do you find that your overall health and happiness is impacted by nagging injuries?
Now...

Imagine waking up in the morning feeling energized, alert, light, supple, vibrant, tall and ready to greet your run.

Imagine going through your day without nagging thoughts about how your body feels and how sore it’s going to be for the next days run.

Imagine lining up on the starting line of your next race feeling healthy and vibrant.

As coaches and athletes, we’ve seen foam rolling transform the speed, recovery and injury profiles of the runners we help as well as our own.

Foam rolling is much more than rolling back and forth over a cylindrical piece of foam. It is a treatment, that when done correctly, is effective in promoting pain-free running. We are continually surprised by the number of runners who haven’t heard of foam rolling or don’t foam roll until they become excessively tight or injured

We’ve also found most runners who roll, spend the bulk of their time on their IT bands and obvious tight spots, neglecting other areas of the body. Instead of balancing all



running muscles they create a pattern of imbalance that affects everything from how their arms swing to how their foot strikes the ground.

This is why all muscles should be released whether they are in acute pain or not.

Lastly, we find when runners perform a foam rolling session, mistakes are made. Many times rolling is performed across tendons, bones and sore spots, sometimes making things worse.

The focus of this course is on pain-free running in 10 minutes a day. You may not think this is enough time to make a *real* difference, but it is. And the more consistently you foam roll, the better results you will have.

In this program, you will learn:

- The importance of listening to your body and how to do it
- The anatomy of a muscle
- Why muscles become painful
- How tight and sore muscles impact running performance
- What fascia and the importance of myofascial release for runners
- The differences between foam rollers
- How to select an appropriate roller for you
- How to set yourself up for foam rolling success
- Routines showing you how to foam roll to release tight muscles for pain free running
- How to assess your foam rolling session

The Importance of Foam Rolling for Runners

In total, the human body has over 300 skeletal muscles, with each muscle or muscle group having a specific function. Some muscles work alone, while others work together. Take your feet for example and the number of ways they move (inward, outward, up, down and round and round). A different muscle is used to move your feet in each of these directions.

To understand this better, it is helpful to understand some basic muscle anatomy. Every muscle has two ends. At each end there is a covering of connective tissue called a tendon. Tendons connect your muscle to your bone. Your Peroneal, Achilles and Iliotibial Band are a examples of tendons. When your muscle contracts, your bone remains fixed, leaving the other end of the tendon to pull on the bone to make your joint move.



For example, your calf muscle contains two primary muscles that originate above the knee. The gastrocnemius is the larger calf muscle. The soleus is a smaller, flat muscle that lies underneath the gastrocnemius muscle. Both muscles merge into the achilles tendon at the back of your ankle, which inserts into the back of your heel.

When your calf muscle contracts, it pulls on the achilles tendon which pulls on your heel allowing you to push off with your toes. The tighter the muscle is, the more it pulls at the tendon attached to the bone. The body responds by sending more bone cells to anchor the tendon. As these cells collect, they can sometimes create bone spurs (an outgrowth of bone that develops along the edges of bone)

Each muscle in your body has one function--to contract or lengthen. When you sit on the floor and draw your toes to your knees, you contract the tibialis anterior (shin) muscle. Meanwhile the calf muscles and achilles tendon must stretch. Other opposing muscles include biceps and triceps; quadriceps and hamstrings; abdominals and back.

When you run, your muscles contract and lengthen thousands of times, making them susceptible to tightness.

When your muscles become chronically tight, the surrounding fascia (a thin sheath of fibrous tissue enclosing a muscle or organ) can also become tight, causing restricted movement, gait change and potential injury.

Healthy fascia is flexible and can easily be separated from the muscles below. In healthy fascia, the muscles are also flexible, pliable, and free of knots.

Unhealthy fascia is inflexible with a thick consistency and are chaotically aligned, making it painful to separate the fascia from the underlying muscles.

Trigger points are tight knots where fascia and muscle have adhered together. Trigger points can be painful to touch, refer pain, and if not released, eventually be replaced with scar tissue, which contributes to more restriction and gait dysfunction.

Foam rolling, also known as self myofascial release, is the application of pressure to eliminate scar-tissue and soft-tissue adhesion by releasing trigger points and freeing up fascia for pain-free running.

For example, tight fascia around your IT band can cause your knee cap to track incorrectly; loosen the muscles around your IT band and magically, your knee cap begins tracking correctly and your knee stops hurting. Or you may have discomfort in your achilles or peroneal tendons, that requires nothing more than getting several correct calf passes on a roller to relieve discomfort.



Types of Foam Rollers

Each roller has a unique way of treating muscles. It is important to be aware of them, so you can select the best one for you. Differences are generally reflected in roller color, size and density.



Standard Foam Roller

Standard rollers are made from foam and come in a variety of colors. Each color indicates the firmness/density of the roller. White rollers are the least firm and are subject to the most compression, blue rollers are more firm and compress less than white rollers, and black rollers, also known as high density rollers, compress very little, if at all. If you are new to foam rolling, consider starting with a blue or white roller. If you need more tension for your muscles or are a heavier runner, a high density black roller would work best.



Grid Roller

Unlike traditional rollers, grid rollers don't lose shape and functionality over time. The grid roller's sustainability comes from its hard, plastic, hollow core. Grid rollers are designed to resemble the feeling of a massage therapist's hands with the flat surfaces working like palms and the raised surfaces like fingers.

The divots in grid rollers allow for better flow of oxygen and blood, which carries healing nutrients to sore and achy tissue. If you're looking for more of a hands-on feel to your foam rolling practice, consider the grid roller.



Rumble Roller

Resembling a medieval torture device, the rumble roller isn't for the faint of heart. The Rumble Roller's bumps are firmer than muscle tissue, but softer than bone. This design forces the bumps to move out the way if they become in contact with bony parts, such as your spine. Since you control the amount of pressure applied to a given area, you dictate the intensity of your treatment.

For a deeper treatment, lean into the roller with more weight. For less pressure, use your arms for support and distribute more of your weight across your whole body.

Like the Grid Roller, the spaces in between the rumble roller's bumps allow for the flow of oxygen and blood, which in turn carries healing nutrients to sore and achy spots.



If you are looking for a deep, targeted massage, consider the rumble roller, but be sure to have an additional roller on hand for less intensity.

Foam Roller Sizes

Foam rollers come in a variety of sizes with the largest being 6x36" and the smallest being 5x12". Larger rollers cover more surface area, which is advantageous if you are a larger/heavier runner or want to treat more than one surface area at a time, such as both calves, hamstrings, etc., while smaller rollers are more portable, making them excellent for travelers.

Foam rollers can be purchased from a variety of places. Three online sources are listed below:

- Amazon.com
- Dicks Sporting Goods
- Performbetter.com

Consider when, where and how you will use your roller to determine the best roller for you.

When to Foam Roll

There is no consensus on how often to foam roll, when to foam roll or how many passes to make on a given area.

It is not uncommon for runners to perform a foam rolling session before heading out for a run to loosen up, and perform a longer session after a run for further mobility, relaxation and preparation for the next day's workout. Listen to your body, assess how you feel and perform sessions as needed. But regularly is best, as the benefits of soft tissue therapy have a cumulative effect. The more consistently you do it, the better you'll feel.

However, when deciding whether to foam roll or perform static stretching before a workout, take this into consideration. Static stretching done before a workout can diminish force production. What that means to you, is less power in your stride. But, this does not seem to be the case with foam rolling.

A study in the [Journal of Strength & Conditioning Research](#) had subjects foam roll their quadriceps for 60 seconds, rest 30 seconds, then repeat for 60 seconds. Two minutes following the foam rolling, flexibility was increased by 12.7% (11 degrees), and ten minutes following the foam rolling, flexibility was increased by 10.3% (9 degrees).



In short, the study suggests foam rolling increases range of motion without diminishing neuromuscular performance.

Setting Yourself up for Success

One of the things we often hear from runners is they don't have the time to foam roll. It's all they can do to get their runs in. We understand you are busy. We also know, if you don't take care of your body, you risk setting yourself back with injury or not reaching your running goals. With a minimum of 10 minutes a day, you can completely change the trajectory of your injury and running profile.

We want to offer you techniques we've found helpful for making foam-rolling a priority.

Method #1: Mind Over Matter - Adopt the standpoint it doesn't matter whether you feel like foam rolling or not, it is going to happen. Decide when you are going to foam roll and do it. With this method, you don't think, you just act.

Method #2: Fake It - This method works well. Tell yourself you only have to foam roll until your race date. There is something about setting a time-frame that makes an otherwise challenging activity easier to do. Use this technique on days where it's particularly challenging to get your sessions in.

Method #3: Scare Yourself - Use this method and we guarantee, you'll get on your roller within the next minute. Imagine yourself being set back in your training by something you could have prevented. That doesn't feel good, does it? In short, your desire to achieve your running goal has to be greater than your resistance to foam roll.

Method #4: Distract Yourself - Put on some music. Listen to a podcast. Get on the floor in front of television. Do whatever you need to do to mildly distract yourself during your session. If you use this method, be sure not to let your full attention get away from your session as listening to your body is a big part of foam rolling success.

A typical foam rolling session can be performed twice a day, before and after your workout and should last anywhere between 10 and 20 minutes.



4 Foam Rolling Mistakes and How to Fix Them

Mistake #1: You foam roll directly on an injured area

It would seem to make sense that if your IT band is hurting then rolling directly on the IT band would help alleviate that trouble spot.

However, the body doesn't work this way for a number of reasons.

First, when it comes to foam rolling and myofascial release, constantly working the area of pain could create more inflammation and tension in the area, further tensing the muscles and fascia.

Second, where you feel the pain is not always the source of the injury. IT band trouble, for example, isn't typically a result of the IT band itself being tight. Rather, IT band issues are typically a result of tightness in the muscle groups that attach to the IT band, like the gluteus maximus (your butt).

What to do instead

Rather than constantly working directly on the area that causes pain, slowly foam roll your way away from the pain center to the connecting muscles.

Once you hit the attachment areas, work those thoroughly. Then proceed back to the area of pain and work gently at first. Visualize yourself "melting away" the tightness.

Not only will you avoid inciting excess inflammation this way, but you'll target the real source of your injury.

Mistake #2: You foam roll too quickly

Foam rolling hurts. Period.

Runners that know they should foam roll sometimes speed over areas because it hurts less than using slow, deliberate movements. Or, runners short on time will breeze through a session to check it off their list.

Unfortunately, foam rolling quickly doesn't accomplish the objective – releasing fascia and relaxing muscles.

What to do instead



While it feels better to go fast, and you do circulate blood flow, releasing fascia takes time.

Fascia is a thick, fibrous web of tissue. As such, it can't be released with a quick pass of the foam roller. You need to be slow and deliberate in your movements.

Once you find a sensitive area, slowly work back and forth over the spot. Again, be thoughtful and think of foam rolling like melting through the muscle and fascia.

Mistake #3 You stay on one spot too long

Ok, so this seems like a contradictory statement to mistake #2. But it's not. Runners take things to the extreme as is evident in the following story told by Jeff.

In college the trainer told me I needed to ice my achilles as much as I could when it flared up on me.

I asked her how long between each icing was needed. She said 90 minutes.

I set my watch to 1 hour and 45 minute intervals. Every 90 minutes I iced for 15 minutes. I did this all day 6 am to 10pm when I went to sleep.

I woke up the next morning with freezer burn on my achilles.

That's just a little story to illustrate I know how runners think.

With foam rolling, you're instructed to work over and sometimes pause on very tight spots in your legs.

Jeff has seen runners take this advice and sit on the foam roller for 5 or 10 minutes, directly on the point of pain. However, staying on one spot for too long might irritate a nerve or damage the tissue, which can cause bruising and further inflammation.

What to do instead

Be gentle at first. Start with half your body weight, using your hands or other leg to adjust pressure, and slowly work into full body weight.

The maximum amount of time you should spend on any one area is 20 seconds or so. After this, you only risk irritating the spot more than you're helping it.



If you have a really troublesome area you can always come back for another session in the evening when the muscles has had time to relax.

Mistake # 4: You use bad posture and form

Foam rolling is hard work. we almost guarantee you'll break a sweat.

The IT band position places almost all your body weight on your one supporting arm. Rolling the quads is basically the plank position. Be sure to keep your head, back, hips and feet aligned while doing it.

Do's and Don'ts of Foam Rolling

One of the best things about foam rolling is it isn't limited to injury prevention. You also get the benefits of recovery, speed and a more balanced body all in one session. However, there are some things you should be aware of so you get the most from each session.

- Always speak to your physician before beginning a new exercise routine.
- Perform a short warm up before your session (5-10 minute walk or slow, light passes on the roller).
- Keep your abdominal muscles tight by lengthening your body or drawing your belly button towards your spine.
- Avoid holding your breath. Breathe evenly.
- Relax the muscle you are working while performing each pass.
- Avoid rolling over joints and bones. Treat those areas with tennis, golf and other balls or tools.
- Avoid rolling directly on an injury. Instead, target muscles around the sore spot. Rolling an inch or two away reduces the chances of inflaming and injury while still working the muscles.
- Pause between 10 and 20 seconds on sore spots or perform short passes until they release.
- Roll slowly. The goal isn't to see how quickly can complete a session. In fact, the slower you perform a pass, the more effective the pass can be.
- Drink plenty of water. Water helps keep muscles limber and elastic. Foam rolling causes your body to use water, much like a workout, so you must replenish your fluids afterwards.
- Apply as much body weight as possible. When foam rolling, you use your own body weight to give yourself a deep-tissue massage. The more weight you apply, the deeper the massage, but keep it within your pain threshold. Too much weight on a damaged muscle will only harm it more.



- Make it a daily habit. Even if you aren't at the gym, make a point of rolling those muscles. Think of it like flossing – it is daily maintenance
- Stop anything that causes pain or pain to worsen. Discomfort is ok.