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# How to Use the Foam Roller



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## Enhanced Foam Rolling

After a while, you may find that foam rolling isn't as painful and or effective as it once was. At that point, you might want to take a second look at pictures of your anatomy and try using an enhanced foam rolling techniques.

Enhanced foam rolling is performed by stretching the body part while using the foam rolling techniques that you have learned in this booklet. This can help you really focus on the small portions of the muscles that are leading to your pain and dysfunction. Go slowly over each section of the muscle, ensure you are always in a safe position and roll over the area until you feel the tissues relax and your pain decrease to get the best results.



## Conclusions

This guidebook should help you to more effectively use your foam roller. Please keep in mind that this booklet is for informational purposes only. For treatment of any disease please seek guidance from a licensed medical provider before attempting to use a foam roller.

Once you integrate this into your exercise routine, you will find the foam roller to be an invaluable tool in keeping you healthy and pain-free.

Going over areas slowly and repeatedly, while keeping in mind the anatomy of the area will help you to find and help repair the trigger points and fascial adhesions that are preventing you from being your best.

Have fun and stay healthy,  
Dr. Jay Marienthal, DC, DIBAK

It can be difficult to safely position the body to use a foam roller in the areas of the forearm and wrist. Luckily, there are devices that are specifically designed for those parts.



## What is a Foam Roller?

A foam roller is a piece of hard foam that can be used for self-myofascial release. They come in a variety of levels of firmness and designs. They are usually found in:

- Soft (low density)
- Medium (medium density)
- Hard (high density)
- Textured
- Vibrating
- Handheld



Foam rolling has become increasingly popular as a tool to aid in physical and manual therapies. Foam rollers can be useful for warm-ups, recovery and treatment of trigger points, fascial adhesions and connective tissue dysfunction. They are used by rolling your own body weight over the problem area to create a massage that helps to improve the function of the musculoskeletal system.

## How to Use a Foam Roller

Try and position your body so that you are balanced evenly and painlessly over your arms, legs and the foam roller. Never position yourself in an uncontrolled position or with excess pressure on one body part. This could result in an injury and should be avoided.

Keep the body part that is in contact with the foam roller as straight as you comfortably can. This will allow your body to smoothly move back and forth.

Roll slowly over the tender spots until the pain begins to dissipate. This usually happens within a few minutes but can sometimes take multiple sessions before you get relief.

Foam rollers are typically used while lying on the ground but can also be used against walls or in a bed, if mobility is an issue.

A basic understanding of the anatomy of the muscles and tissue will ensure you are most effectively using the foam roller.

If an area is too tender to work on, start away from the most painful area and slowly work toward the pain. Although using the foam roller can be somewhat painful at times, excess pain should be avoided and can result in injury.



## Upper Extremity

The foam roller can be extremely useful on the upper extremity. However, it might require a bit more creativity. Using various body positions will make it possible for you to access most muscles with the foam roller.





## Back and Spine

Foam rollers should never be used over acute injuries and can exacerbate many back injuries. Please contact a licensed medical provider if there are any questions about the safety of using a foam roller over your back.

Due to the length of the back, the different convexities between the cervical, thoracic, lumbar and sacral spine, each area of the spine should be rolled separately.



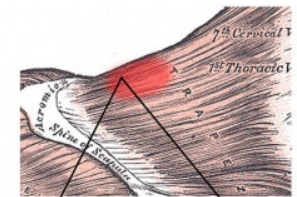
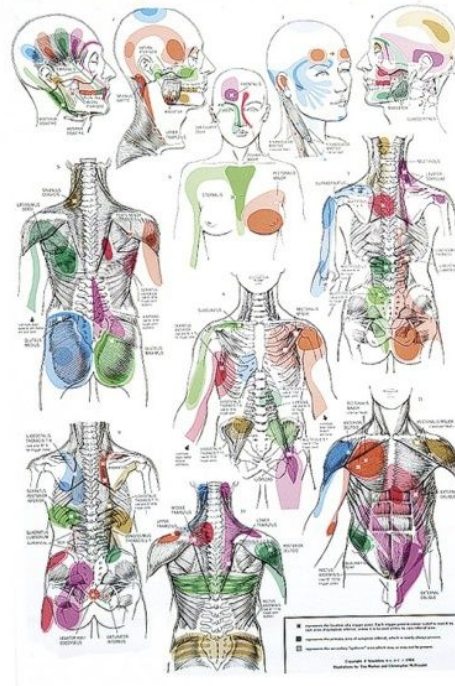
The foam roller can be used both vertically and horizontally over the back. Protecting the cervical spine by either placing the foam roller under the neck or the hands behind the neck is important in preventing any injury to the cervical spine.



## Trigger Points

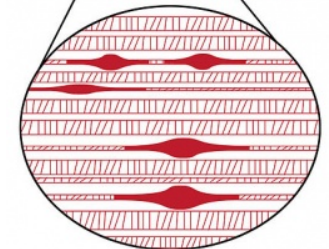
Trigger points are tight and tender spots that develop because of connective tissue changes inside the muscle. They are usually found as palpable nodules between the muscles and the surrounding tissue. They can be found in the belly of muscles, at the junction of the tendon and the bone and even in ligaments.

Trigger points can cause referred pain that radiates in a pattern that doesn't correlate with any nerve or spinal cord level.



Trigger points can be caused by:

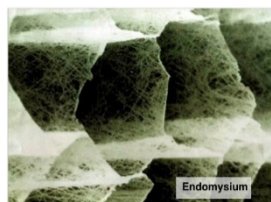
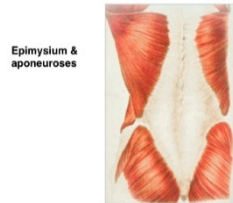
- Aging
- Injury
- Lack of exercise
- Bad posture
- Muscle overuse
- Chronic stress
- Vitamin deficiencies
- Sleep disturbance
- Joint problems and hypermobility



## Fascia

Fascia is a collection of densely woven, collagen-based fibers that traverse our body and hold everything together.

Fascia penetrates all areas of the body and shrinks, elongates or toughens to adapt to our lifestyles. This intricate system allows our body to change to fit our environment. However, this can be a double-edged sword



because these adaptations can create fascial adhesions and pain.

With repeated use of the foam roller, you can work to remodel the fascia and restore normal, pain free, function.

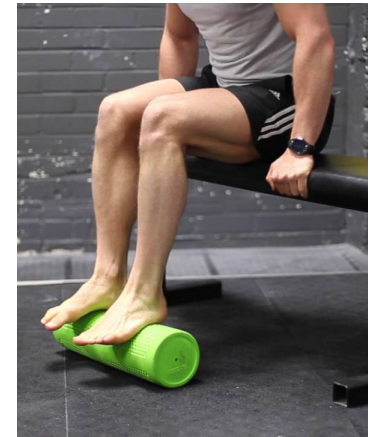
Many times, people will have pain at the origin or the insertion of the muscle because of the fascial adhesions throughout the length of the muscle. This is caused because of the firm attachments at the tendons, near the end of the muscle, and the tendency of inflammation and injury at the area of the muscle where muscle turns into tendon. This makes foam rolling an extremely useful tool in the resolution of pain and injury.



## Feet

The feet, and plantar fascia, can also be helped with the foam roller.

However, it can be difficult to reach the specific locations that are causing problems. In those cases, specific balls or foot foam rollers may be more useful at getting those hard to reach areas.



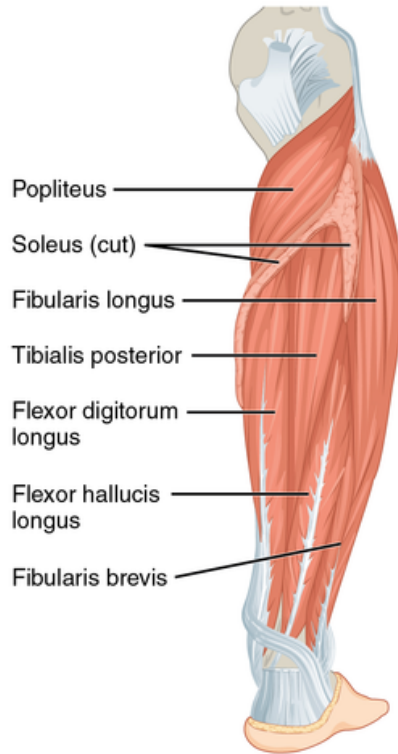
Additional pressure can be applied by placing your other foot on top of the foot you are treating.

The smaller foot rollers can be placed in the freezer to add cryotherapy to your treatment.



## Calf and Posterior (Back) Shin Muscles

This area can be difficult because it can be hard to create enough force over the foam roller to work the muscles sufficiently. By using your other foot to create extra pressure you can help to work out the muscles.



By rotating your body, you can treat all of the muscles that are located in the calf.



## Precautions and Contraindications

It is always important to make sure that you do not cause any further injury when using the foam roller. You should contact your physician if there are any questions.

### Precautions

- Hypertension
- Pregnancy
- Osteopenia
- Problems with mobility
- Diabetes

### Contraindications

- Open wounds, bruises or rashes
- Metastatic cancer
- Acute injuries or fractures
- Acute infection
- Osteoporosis
- Recent surgery
- Loss of sensation
- Deep vein thrombosis (DVT)
- Peripheral vascular insufficiencies
- Blood thinners
- Bleeding disorders



## Lower Extremity – Anterior (Front)

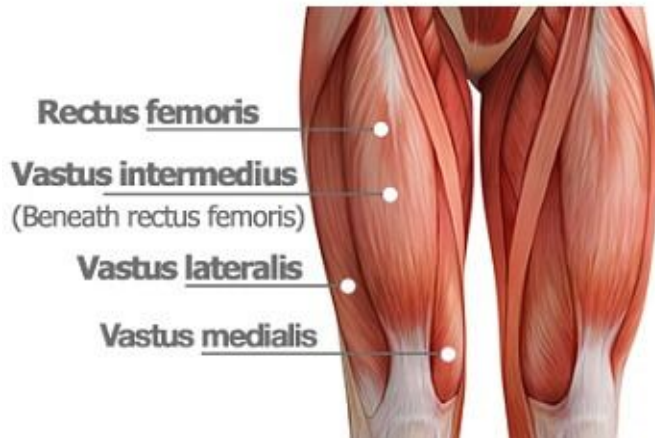
### Quadriceps

The Quadriceps are separated into four muscles

- Rectus femoris
- Vastus medialis
- Vastus intermedius
- Vastus lateralis

Your body position while using the foam roller will dictate what muscle you are working on. When working on these muscles it can be helpful to be on your elbows, instead of your hands, to reduce pressure on the wrists.

Keep your bottom leg straight so that you can roll over the entire muscle. Bend your top leg and keep it in contact with the floor to moderate the amount of pressure on the foam roller.



## Gluteus Medius and Minimus

The Gluteus Medius and Gluteus Minimus bring the hip away from the body or stabilize the lateral movement of the body. These muscles can be very important in the treatment of low back pain and hip pain.

The lower leg should be straight, and the position of the upper leg and body will direct the force of the foam roller into the appropriate spots.



These muscles are relatively large muscles and can have many different areas within the muscle that can be problematic.

You may have to move your body to have the foam roller contact further forward or further back to work on the spots that are causing problems.

### Hamstrings

The Hamstrings are made up of many different muscles through the back of the thigh. By maintaining a straight lower leg and positioning your upper leg and body to contact the foam roller at different points you can work on all of these muscles.

Changing your arm position from on your hands to on your elbows can create help to find different painful spots.





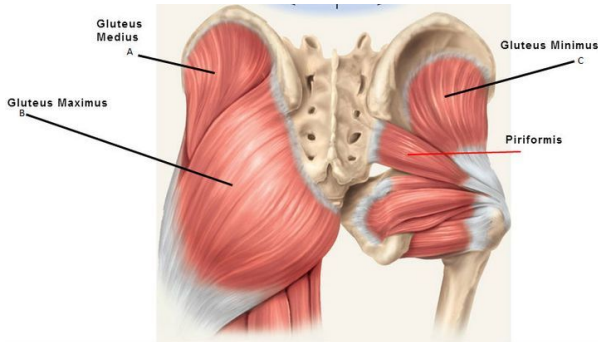
## Lower Extremity – Posterior (Back)

Many things that we do in modern society cause us to become flexor dominant, resulting in tight and painful muscles and fascia throughout the back of our body.

### Gluteus Maximus

These muscles can be very important in the treatment of low back pain. The extended periods of sitting in modern society make these muscles a great target for foam rolling.

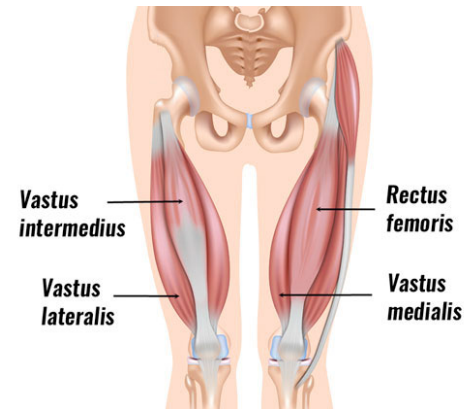
The Gluteus maximus extends the hip and runs from the femur (thigh bone) to the top of the ilium (hip bone).



## Rectus Femoris and Vastus Intermedius

The Rectus Femoris and Vastus Intermedius are very large muscles that often have many trigger points and fascial adhesions that are found throughout the length of the muscles.

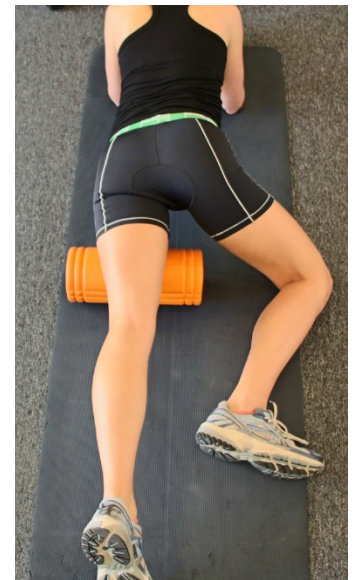
Treatment of the rectus femoris can be extremely important in many people with pain in the back, hip or knee. Often, there will be pain felt at the top end of the muscle (the bone on the outside and top of the groin). However, attention must be paid for tender spots throughout the entire length of the muscle.



Since these two muscles overlay each other, these two muscles are usually rolled together. The body should be positioned so that the middle of the Quadriceps are in contact with the foam roller.

Contact should be made with a fully extended leg, so that rolling is made easy. The arms can be fully extended as well, but it is often easier on the wrists if you rest on your elbows. Occasionally, you can find hidden painful spots by changing your arm position.

This is a large muscle, so it can work best to slowly roll over one section of the muscle at a time and then move to reposition the foam roller on a different part of the muscle.



## Vastus Medialis

This is the muscle of the Quadriceps that is closest to the center of the body (medial). This muscle is extremely important in patellar tracking (making sure that the patella moves smoothly through the groove of the femur). When there are problems with this muscle it can lead to Quadriceps dysfunction and knee pain.



The inside of the thigh should be in contact with the foam roller. Often, you will have to move to the end of the foam roller to get good contact.



## Vastus Lateralis

This is the muscle of the Quadriceps that is on the outside of the thigh (lateral) and is often exquisitely tender due to trigger points and fascial adhesions. Problems with this muscle can often be mistaken for Iliotibial Band (ITB) Syndrome.

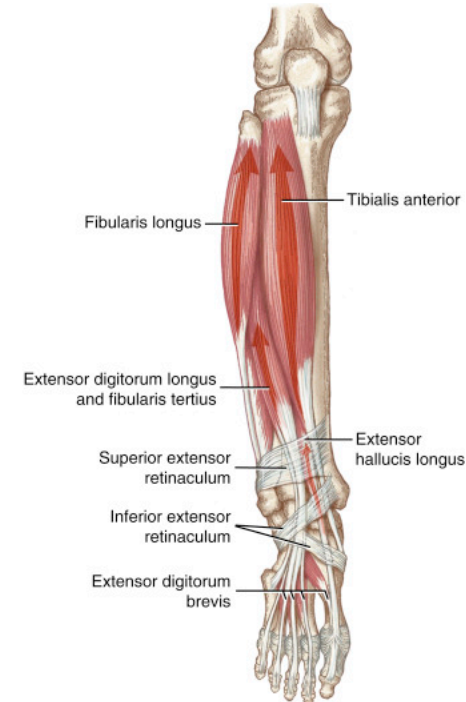
Body position is important when foam rolling with this muscle because it can be too painful to do if you do not properly support yourself.

This is a large muscle, so it can work best to slowly roll over one section of the muscle at a time and then move to reposition the foam roller on a different part of the muscle.



## Anterior (Front) Shin Muscles

There are many different muscles in the front (anterior) compartment of the leg. The Tibialis Anterior is often one of the muscles that is sore with front shin splints due to many fascial adhesions and trigger points.



These muscles can be more difficult to use with a foam roller but can easily be worked with proper body position.

This can be done with a straight leg, in a push up position, with both legs on the foam roller, or one leg at a time. The different muscles can be contacted by rotating your body over the foam roller.

You should at no point experience any pain inside your knee. This position can create stress through the knee joint, so make sure you stay in control and prevent injury.

