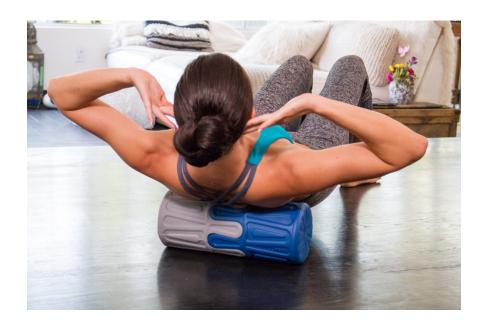
# **MedRock Foam Rollers**



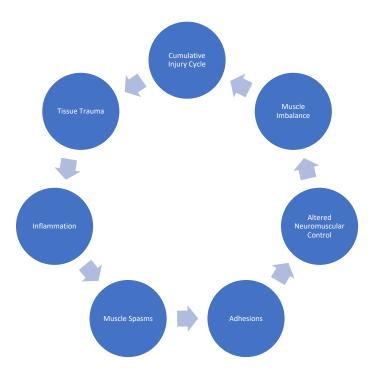
# What is a Foam Rolling?

Foam Rolling utilizes cylindrical tubes to self-massage and/or release restricted myofascial and joint tissues of the body and has been widely accepted in the athletic, fitness and medical industries for decades. There are countless benefits to foam rolling including improving flexibility and mobility, muscle recovery, improved movement and biomechanics, decreasing pain, decreasing muscle tension, inhibiting overactive muscles and injury recovery.

These cylindrical tubes or rollers are made up of various densities of polyethylene foam, EVA Foam (Ethylene Vinyl Acetate) and even some plastics such as ABS (Acrylonitrile-Butadiene-Styrene) and PVC (Polyvinyl chloride or vinyl).

#### **How Does It Work?**

First, let's talk about the tissues that we are affecting with foam rolling. Superficial fascia is a soft connective tissue located just below the skin in nearly all regions of the body. It wraps and connects the muscles, bones, nerves and blood vessels of the body. Together, muscle and fascia make up what is called the myofascial system. Due to various influences including disuse, poor postures, repetitive overuse, poor movement patterns and injuries, the fascia and underlying muscle tissue can become stuck together and form adhesions. These adhesions can result in altered neuromuscular control, muscle imbalances and lead to further dysfunction. This process can be demonstrated by what is called the Cumulative Injury Cycle (See Figure 1).



Foam Rolling focuses on breaking down these adhesions, also known as trigger points or knots, in order to restore optimal muscle health, mobility and overall function.<sup>2-6</sup> Foam rollers are relatively inexpensive and you can target just about any muscle or fascial group in the human body.

## What are the Benefits of Foam Rolling?

- 1. Increase circulation to get more oxygen and nutrients to soft tissues and vital organs
- 2. Muscle Relaxation
- 3. Correction of muscle imbalances
- 4. Improved joint range of motion
- 5. Decrease pain
- 6. Decrease muscle spasms
- 7. Use as a warm-up for tissues prior to work-out or activity
- 8. Use a post-work out tool to push lactic acid out of tissues and reduce recovery time.
- 9. Stimulates the flow of lymph, the body's natural defense system, against toxic invaders.
- 10. Releases endorphins, the body's natural painkiller, to control and relieve pain for chronic illness, injury and recovery from surgery.
- 11. Reduces post-surgery adhesions and edema and can be used to reduce and realign scar tissue after healing has occurred.
- 12. Improves neuromuscular efficiency
- 13. Reduces trigger point sensitivity
- 14. Optimize length-tension relationships throughout the human body which reduces stress on movement patterns.

One of our foam rollers, called HotRock, also adds deep, penetrating heat to the foam rolling experience. Heat also has significant positive health benefits including:

- 1. Decreased pain
- 2. Decreased muscle spasms
- 3. Increased flow of blood, oxygen and nutrients for improved healing
- 4. Increased removal of waste products associated with muscle and joint activity
- 5. Increased range of motion and flexibility
- 6. Relief of stress
- 7. Optimization of healing

#### **Instructions for Foam Rolling**

Before beginning any foam rolling program, there are some key points to think about. If you have never foam rolled before, you can expect some sensitive areas just like any type of deep massage. This is normal and will improve with consistent and proper use. To assist in this progressive process, The Rock foam roller has three distinct zones of intensity. There is a harder end, a softer end and a combination right down the middle. Start with the softer end and work your way up to greater depths on the other end. In addition, The HotRock foam roller combines the depth of the soft tissue massage with relaxing and pain-relieving electrical heat. The HotRock can provide three levels of heat intensity; low, medium and high.

Initial sensitivity from foam rolling for the first time is very similar to how flossing your gums is irritable for the first time. Initially, your gums are sensitive, but with consistent continued flossing, the tissue remodel and becomes healthy and pain-free. Your muscles may follow this pattern as well with foam rolling.

To learn how to foam roll specific parts of the body, check out the instructional videos on our YouTube Channel. You can watch videos that will take you through some of the most common techniques used by individuals whether recovering from surgery, preparing for sports or just looking to stay healthy. Continue on in this instruction manual to see some of the most common techniques used.

Generally speaking, no matter the body part, you will want to start slowly over the targeted area. As you roll, you may encounter super sensitive spots. Feel free to hold right at that spot for 15-90 seconds until you feel the area begin to "let go." Working each area for 30 seconds and working up to 1-2 minutes is a good starting place, although some individuals start their program with even less time.

# **Foam Rolling Exercises**

#### 1. Gluteals and Deep Hip Rotators (Buttocks):

Sit on your foam roller and choose which side you would like to begin with. As per the picture and videos, you can cross your ankle over your opposite knee to add more stretch and thus intensity to the movement. This particular technique is great for lower back pain, sciatica, hip and knee pain.



#### 2. Iliotibial Band (IT Band - Side of Thigh):

Lie on your side supporting yourself on your bottom forearm and hand of top arm in front of you. The foam roller is under the side of your bottom leg. Cross your top leg so that your foot is flat on the floor in front of the leg you are rolling. You can also just stack both legs on top of each other to make it more intense. Most people will split the length of the IT Band into 2 or 3 parts to make it easier on their shoulder joints. This is very useful for lower back, SI joint, IT band Syndrome, hip/greater trochanteric bursitis, hip and knee pain.



#### 3. Quadriceps (Front of Thigh):

Position yourself in a forward forearm plank with the involved leg on the roller and the uninvolved leg off to the side. Use your arms and other leg to roll back and forth on the area. Again, the length of the quads can be broken into 2-3 parts to take make the movement easier on your neck and shoulders. Use this technique for lower back, hip and knee pain including patellar tendinitis, patellofemoral dysfunction and Runner's Knee.



#### 4. Hamstrings (Back of Thigh):

You can perform this on one hamstring at a time to make it easier on your wrists, neck and shoulders as well as less sensitivity to the hamstrings. To create a deeper feeling into the hamstring, stack your uninvolved leg on top of the involved leg. Use for lower back, hip and knee pain, tendinitis, hamstring strains and sciatica.



## 5. Gastrocsoleus (Calf):

Exact technique as the hamstrings, except place roller under calf muscles. Great for Achilles tendinitis/tendinosis, calf strains, plantar fasciitis/fasciosis, heel pain, foot/ankle pain and knee pain.



## 6. Adductors (Inner Thigh):

Lie face down and place roller under the inner part of one thigh as involved knee is bent and flexed toward chest. Place roller at an angle and use arms to roll inner thigh. Used for groin/adductor strains, back and hip pain, knee pain.



#### 8. Triceps and Latissimus Dorsi (Lats):

Lie on side with roller under upper arm and arm pit area as desired. Roll and/or hold in positions for 30-90 seconds around upper arm, axilla, scapula (shoulder blade) and chest.



#### 9. Thoracic Self-Mobilization (Spinal Joint Mobilization):

Start by lying on the foam roller with it positioned in your upper and middle back. You can keep buttocks lifted and roll up and down along spine to release soft tissues. Then keep buttocks on ground and use hands to support head. While keeping eyes looking straight ahead in front of you, allow your upper body to bend back over the roller with good control. Think of this technique as moving opposite of poor posture and opening up the front of your body. Hold for about 3-5 seconds and repeat 3-5 times. Then move to a new position a little higher or lower on your thoracic spine and repeat.



#### 10. Upper Cervical Mobilization (Upper neck):

Lie on ground with foam roller under neck as if using as a pillow. Position in a few different levels slightly up and down at base of skull. Once in desired position, slowly turn head as far as you comfortably can to the right and hold 3-5 seconds. Return to center, then turn to left as far as you comfortably can. Hold 3-5 seconds, return to center. Repeat this movement up to 5-10 times.



There are a ton of other movements and exercises you can use with a foam roller. Sign up for our Quarterly Newsletter to receive more information. Happy Rolling!!!

#### References

- 1. Skandalakis, John E.; Skandalakis, P.N.; Skandalakis, L.J.; Skandalakis, J. (2002). Surgical Anatomy and Technique, 2nd Ed. Atlanta, GA: Springer. pp. 1–2. <u>ISBN 0-387-98752-5</u>.
- 2. Clark MA, Lucett SL. <u>NASM Essentials of Corrective Exercise Training</u>, Baltimore, MD:Lippincott Williams & Wilkins;2011.
- Clark MA, Lucett SL. NASM Essentials of Personal Fitness Training 4<sup>th</sup> ed. Baltimore, MD:Lippincott Williams & Wilkins;2012.
- 4. Edgerton VR, Wolf S, Roy RR. Theoretical basis for patterning EMG amplitudes to assess muscle dysfunction. *Med Sci Sports Exerc* 1996;28(6):744-751.
- 5. Janda V. Muscle weakness and inhibition in back pain syndromes. In: Grieve GP (ed). Modern Manual Therapy of the Vertebral Column. New York: Churchill Livingstone, 1986.
- 6. Reid DA, McNair PJ. Passive force, angle and stiffness changes after stretching of hamstring muscles. *Med Sci Sports Exer* 2004;36(11):1944-48