KINETIC LOOP
TRAINING SYSTEM
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Rolling the Hot Spots: Stretching Using the Kinetic Foam Rolling Loop

Every athlete should train addressing the five components of fitness in order to achieve peak performance. The five components are as follows: Aerobic endurance, muscular strength, muscular endurance, flexibility, and body composition. As the average or elite endurance athlete trains, he or she continually observes both their aerobic and muscular endurance because of its effect on body composition. Usually, improving muscular strength is done in the off season when one builds a stronger fitness foundation as well as increasing the athlete's strength to weight ratio. Muscle flexibility is the component of fitness often downplayed or neglected by many athletes.

Most people wonder why flexibility is important to peak performance. The normal range of motion becomes altered as we get older and creates postural distortion patterns. A cumulative injury cycle is caused by postural distortion patterns. If we lose muscle elasticity, a component of the muscular makeup, athletic injuries may increase. Professionals usually treat this with practical stretching which, if properly done, improves flexibility and increases elasticity. There are two important factors that influence or inhibit flexibility: the golgi-tendon organ (GTO) and the muscle spindle. The Golgi Tendon Organs are receptors for stimuli and are sensitive to changes in tension and rate of tension change on the muscle. GTO are usually located at both ends of the muscle for the lengthening reaction. The problem is that it is difficult to stretch or activate the golgi-tendon and the muscle spindle. The golgi tendon takes a stretch that is active static

stretch (applied constant force) resistance to the muscle which last longer than 15 seconds, which then causes the GTO receptor to release and increase muscle length. The muscle spindle, on the other hand, is usually activated when tension or pressure is activated from a stretch with pressure to the muscle. Scholars recently discovered that 80-90 pounds of pressure can increase elasticity.

As a cyclist or tri-athlete you may be wondering why this is important to you. Your muscle is like a rubber band and the further you stretch it the further the rubber band will launch when you let it go. Your muscle is just like that rubber band; if you can increase your elasticity in the muscle by improving your flexibility, the result will be increased power and improved performance. Foam rolling, also known as self myofascia release, is like getting a massage without the expense of a massage therapist.

In this article, I will give you the most effective instruction for foam rolling all muscle groups, increasing muscle flexibility, promoting body mobility, and releasing pain and tension in all major chronic pain areas, our muscles and joints. These exercises will release and reorganize your musculature (also known as self myofascia release) , as well as your skeletal system, aligning it more positively with gravity. In addition, foam rolling addresses and reduces the "Hot Spots" where pain and tension has gathered in the body. Plus, foam rolling improves balance, body awareness, and dynamic strength. For sports, dancers, and rehabilitation coaches, massage therapists, Pilate instructors, and athlete's, the foam roller is rapidly becoming the tool of necessity for achieving peak athletic performance and as a tool warding off physical injury. Muscle pulls, strains, tears, and breaking of bones can be avoided by increasing flexibility and improving skeletal alignment. They are the perfect compliment to the Kinetic Loop movement because they speed up the process of loosening the body.

Foam rollers are a great investment too. They usually cost under $40 which is less than the price of a single massage. It's like having your own

physical therapist, chiropractor, and masseuse available and ready. Most importantly, they can break the pain cycle that hinders and stops athletes from training, increases muscular flexibility, and opens the door for athletes to achieve their peak performance. One session with a foam roller is all an athlete needs in order to be convinced that this tool is a miracle breakthrough in improving fitness. Once you begin using foam rolling techniques you will wonder how you ever got along without them.

For further information contact

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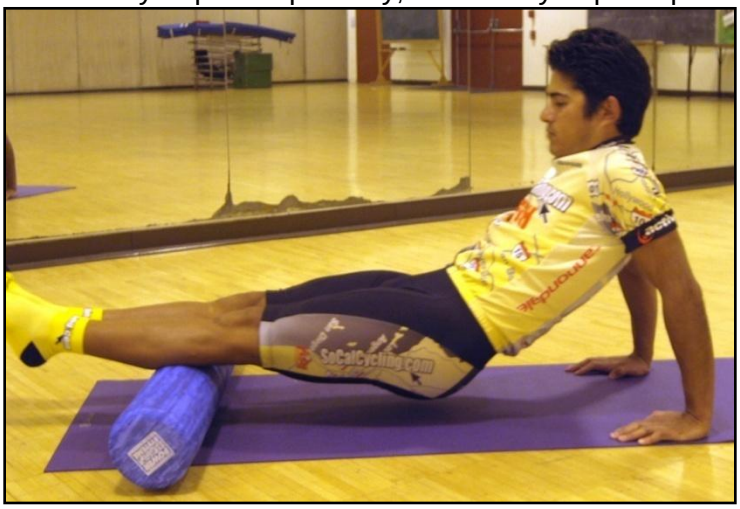
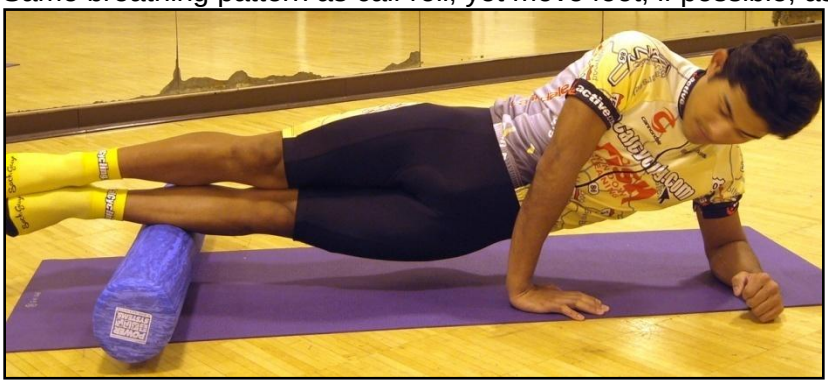
1.) Left Calf (Gastroc/Soleus)

- Balance on both hands, shoulder blades down, and tighten core
- Roll from knee to ankle, if possible, toes pointed up and out
- Corkscrew hips and move foot, if possible, as you roll
- Exhale as you push hips away; inhale as you pull hips toward



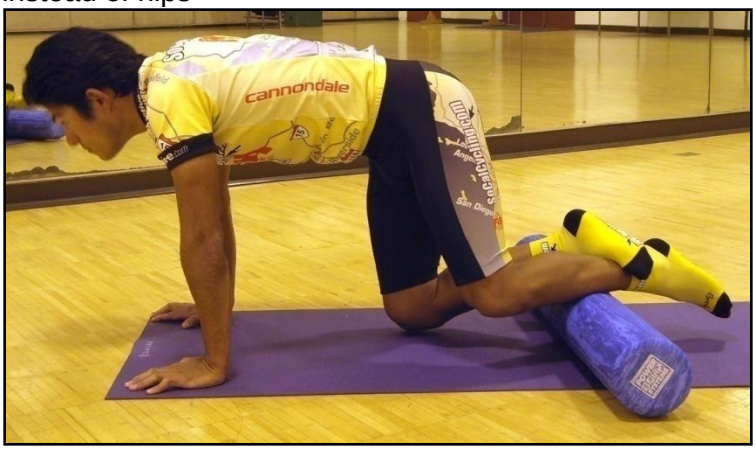
2.) Left Side Calf (Peronius Group)

- Balance on left elbow and right hand, keep hips up, and maintain a tight core
- Roll from knee to ankle, stack legs
- Same breathing pattern as calf roll, yet move foot, if possible, as you roll



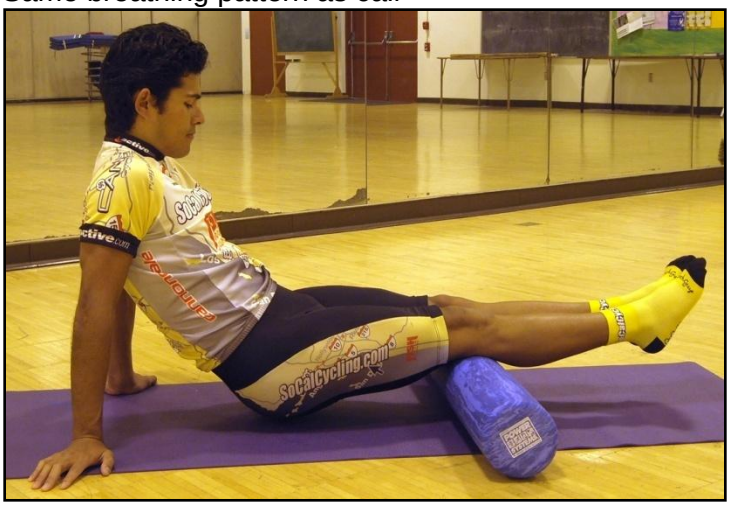
3.) Left front side of Calf (Tibialis Anterior)

- Balance on two hands and pressure left shin
- Shift body to apply pressure to the muscular part of shin (do not put pressure on bone), to do this angle the body to the left at 45 degrees
- Roll from knee to ankle with same breathing pattern as calf roll, but replace knee instead of hips



4.) Left back of Knee (acl, pcl, various attachments)

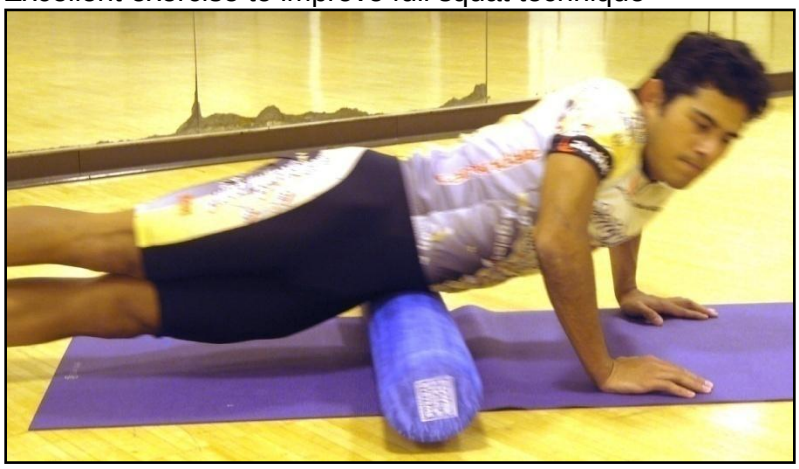
- Set up just like calf roll
- Roll an inch above the knee to an inch below
- Add in corkscrew motion if possible, slow down for "hotspots"
- Same breathing pattern as calf



5.) Left Hip flexors

- This is done by rolling back and forth on the hip flexor pause on hot spots for 15 seconds
- This exercise increases hip mobility

Excellent exercise to improve full squat technique

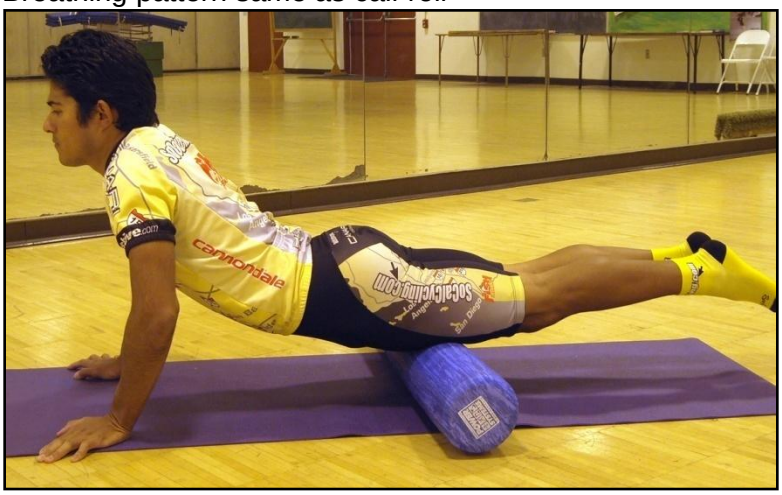


6.) Left side of Quad (Iliotibia Tract)

- Set up like side of calf roll but start on the hip
- Roll from knee to hip, slowly roll to find "hot spots"
- Corkscrew motion, if possible, stack legs or drop right foot to ground

7.)Quads (Quadriceps Group)

- Balance on elbows or hands, face down, with quads on foam roller.
- Work your way up the roller, tighten core
- To place greater emphasis on one leg(left), cross right leg over the back of left, or shift body weight to the left
- Breathing pattern same as calf roll

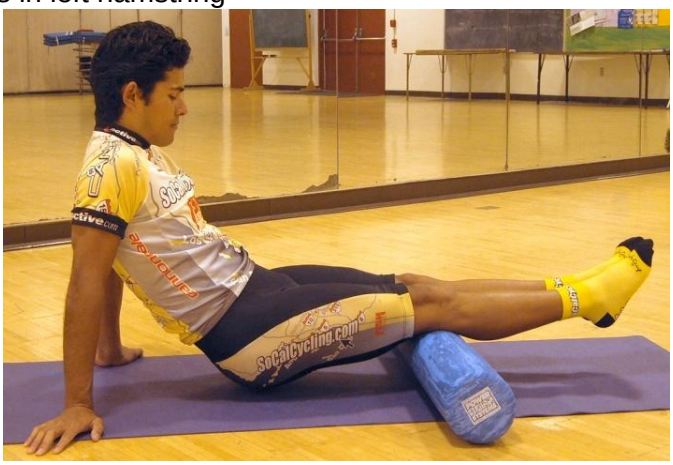


8.) Left inside of Quad (Adductor Group)

- Balance on elbows inside roller, left hip and knee flexed on top of roller
- Roll from hip to knee, slowing for "hot spots"
- Shift weight toward roller for more pressure “stretch
- Same breathing pattern as calf roll
- Keep knee at a 90 degree angle with foot off foam roller to keep pressure on the adductors.

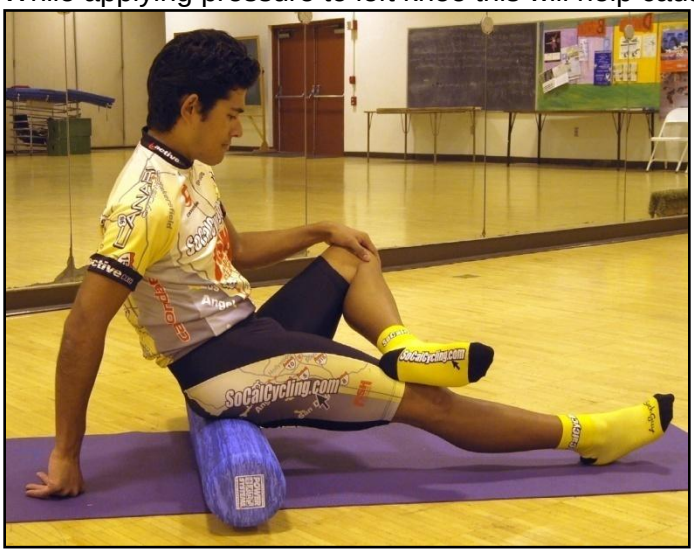
9.) Left Hamstring muscle group

- Sit with the roller under your left thigh.
- Place the palms of your hands on the ground (fingers pointing toward your body).
- Keep your right foot off the ground by stacking your feet on top of each other (heel of right foot on toe of left foot).
- Supporting your body weight with your hands
- roll up and down from the bottom of your hip bone to the top of your knees.
- When rolling back and forth try to simulate a figure 8 to roll the hamstring group muscles in left hamstring



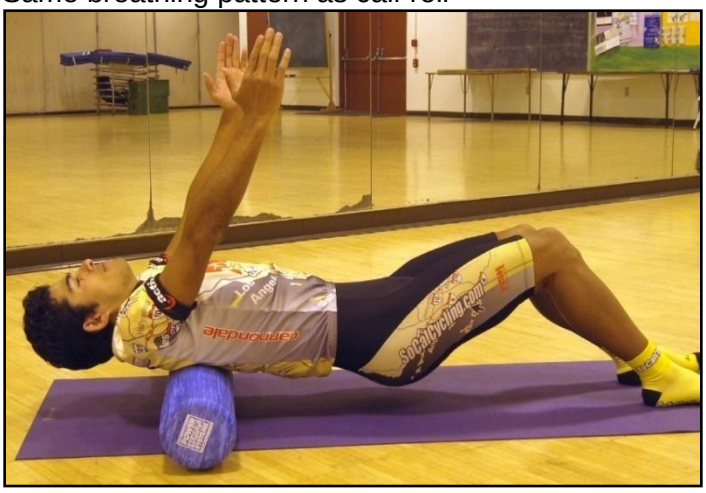
10.) Left Glute (Piriformis/Gluteus Medias)

- Sit on side of left glute with left ankle across right quad, balance on right hand, left hand is on left knee (for advanced put left hand on floor and right hand on knee)
- Roll from top to bottom of glute, straighten leg or make leg circles to advance in stretch
- Continue down left hamstring if you want, use right foot for balance
- Same breathing as calf roll
  While applying pressure to left knee this will help cause the IT band to stretch.



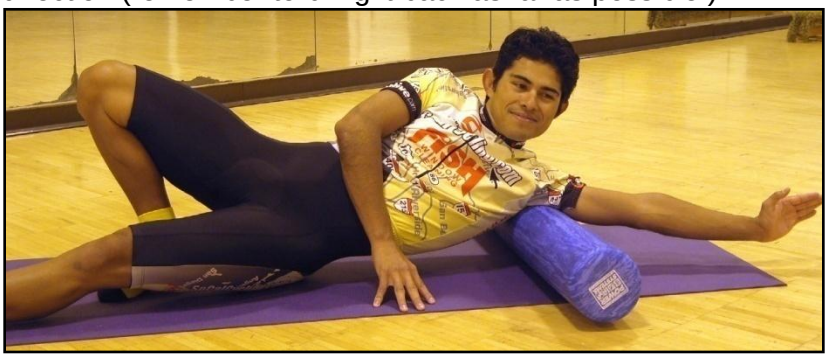
11.) Back (Thoracic Spine Mobility)

- Begin with roller around mid balance with back flat, glutes raised, feet flat and close to glutes, shoulder blades down and depressed
- Roll from mid to upper back, side to side to emphasize a stretch in the spine and lumbar/thoracic region.
- Arms raised straight up or behind head
- Same breathing pattern as calf roll



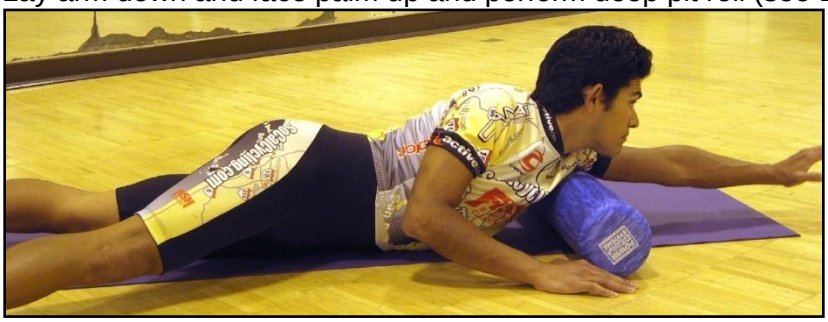
12.) Left Armpit (Lat, Teres Group, Rotator Cuff)

- Balance on left side; start with roller 1 inch below pit
- Lay for 15 sec. then roll into pit and go side to side if possible.
- Find "hotspot", stay on it and extend arm and make 5 arm circles in each direction (remember to bring it back as far as possible.)



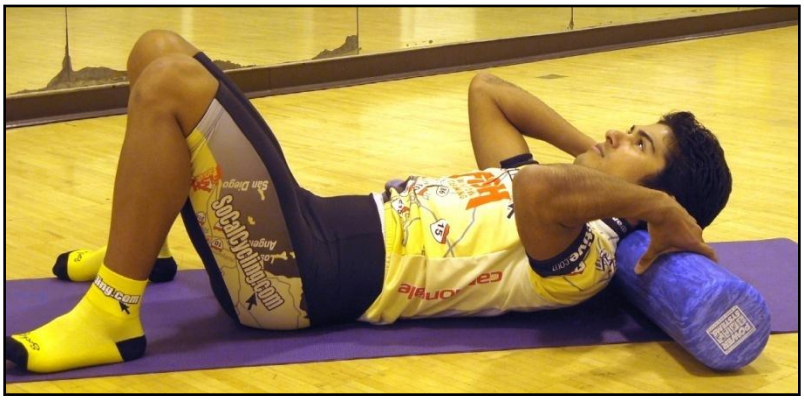
13.) Left Chest (Pectoralis Group)

- Balance on front part of body, place roller on chest
- Roll as much of the chest as possible
- Slow for "hotspots"
- Lay arm down and face palm up and perform deep pit roll (see 16)



14.) Neck (Cervical Spine Mobility)

- Place roller in lower part of neck, like a log, put hands up and over the roller, elbows are in.
- Tighten core and deeply breathe
- Lightly press down on roller but do not let it come off the ground. Use pleasure as pressure meter.
- Hold for 20 seconds

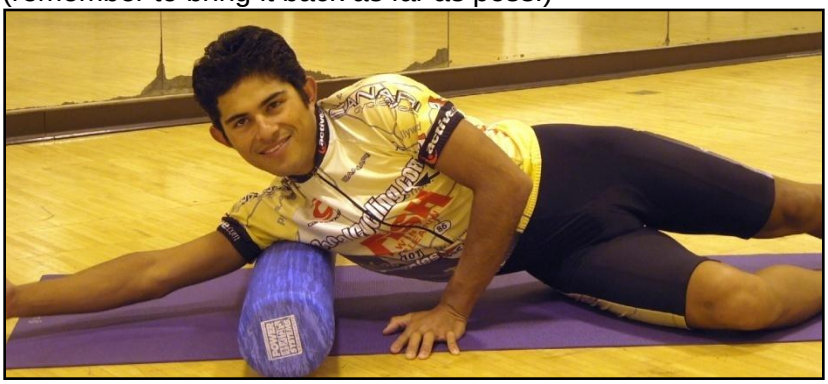


15.) Neck cont. (Trapezius, Levator Scapula)

- Place arms to side and draw shoulder blades in.
- Breathe with every turn of the head and turn only as comfortable, from right to left.
- Place roller a half inch higher and repeat.
- Tighten core and glutes for added pleasure.

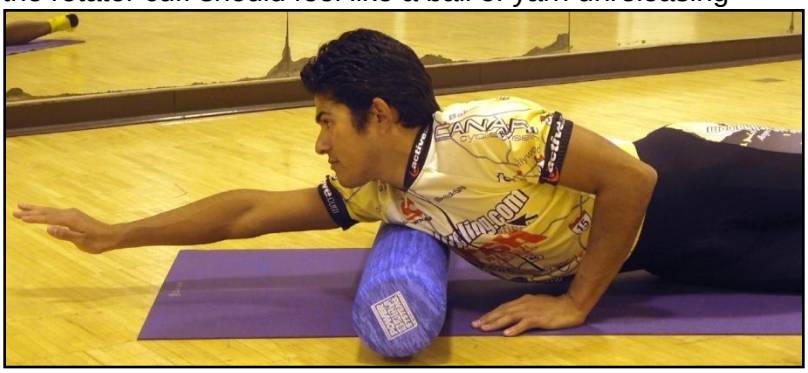
16.) Right Armpit (Lat, Teres Group)

- Balance on right side; start with roller 1 inch below pit
- Lay for 15 sec. then roll into pit and go side to side if poss.
- Find "hotspot", stay on it and extend arm and make 5 circles in each direction (remember to bring it back as far as poss.)



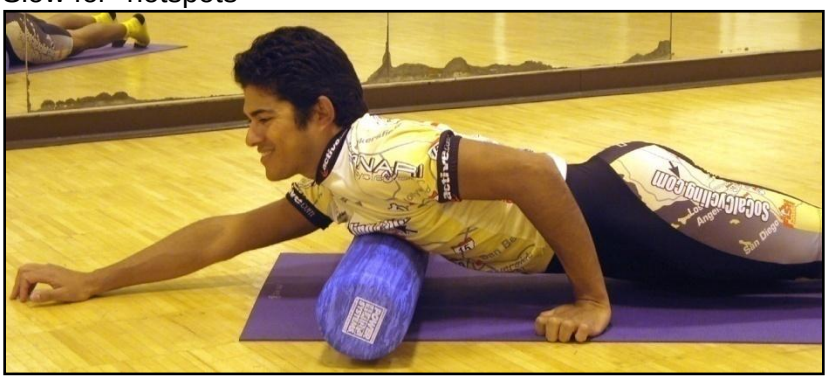
17.) Right Deep Armpit (Rotator Cuff, Upper Tri)

- Do reverse for left side
- Balance on left knee, hand and the right side
- Tighten core, extend right arm forward, palm up, with roller in the armpit and roll the ball in your deep pit, roll upper part of back of arm if you want.
- Slow down for "hotspots"
- the rotator cuff should feel like a ball of yarn unreleasing



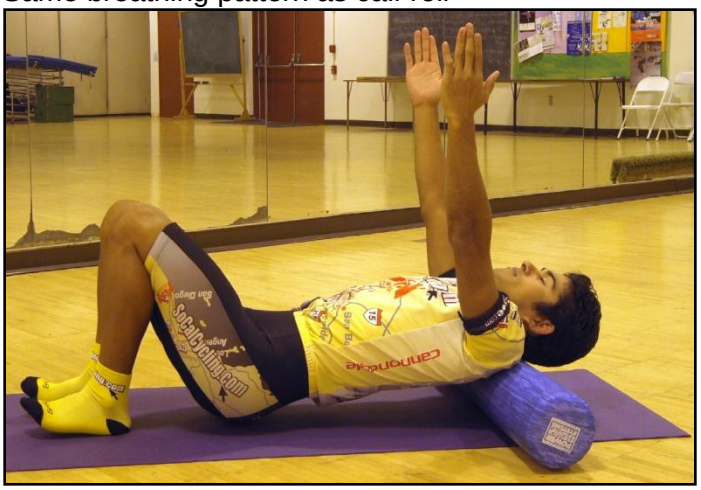
18.) Right Chest (Pec Group)

- Balance on front part of body, place roller on chest
- Roll as much of the chest as possible
- Slow for "hotspots"



19.) Back (Thoracic Spine Mobility)

- Begin with roller around mid balance with back flat, glutes raised, feet flat and close to glutes, shoulder blades down and depressed
- Roll from mid to upper back, side to side to emphasize
- Arms raised straight up or behind head
- Same breathing pattern as calf roll



20.) Right Glute (Piriformis/Gluteus Medias)

- Sit on side of right glute with right ankle across left quad, balance on left hand, right hand is on right knee (for advanced put balance on right hand with left hand on right knee)
- Roll from top to bottom of glute, straighten leg or make leg circles -Continue down right hamstring if you want, use left foot for balance

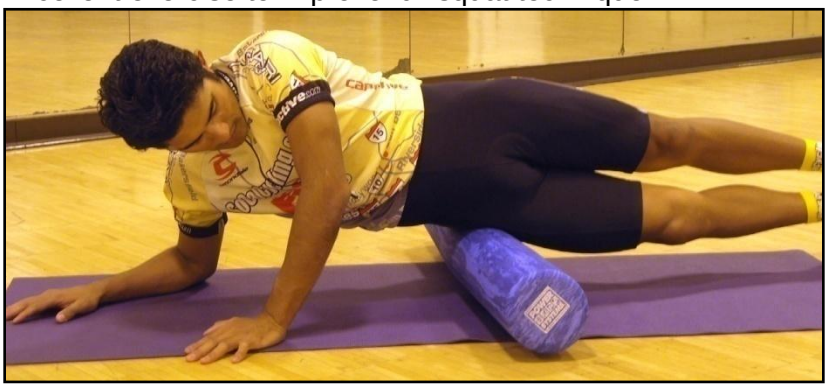
Same breathing as calf roll

21.) Right Hamstring muscle group

- Sit with the roller under your right thigh.
- Place the palms of your hands on the ground (fingers pointing toward your body).
- Keep your left foot off the ground by stacking your feet on top of each other (heel of left foot on toe of right foot).
- Supporting your body weight with your hands
- roll up and down from the bottom of your hip bone to the top of your knees.
- When rolling back and forth try to simulate a figure 8 and roll the hamstring group muscles in right hamstring

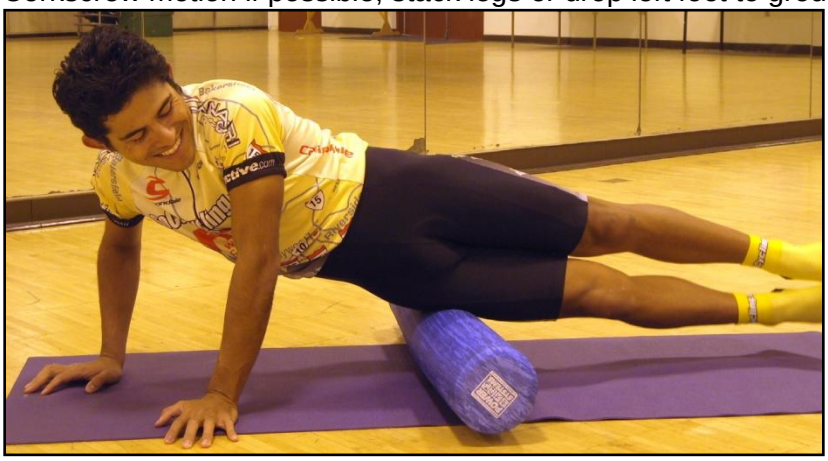
22.) Right Hip flexors

- This is done by rolling back and forth on the hip flexor
- This exercise increases hip mobility
- Excellent exercise to improve full squat technique



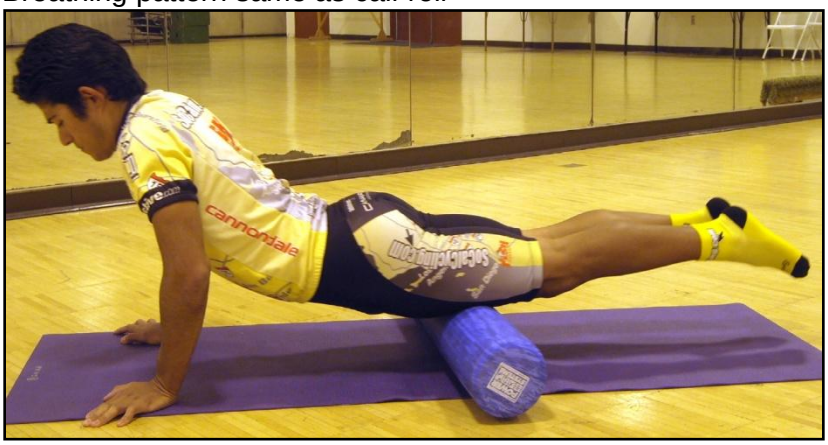
23.) Right side of Quad (Iliotibia Tract)

- Set up like side of calf roll but start on the hip
- Roll from knee to hip; slowly roll to find "hot spots"
- Corkscrew motion if possible, stack legs or drop left foot to ground



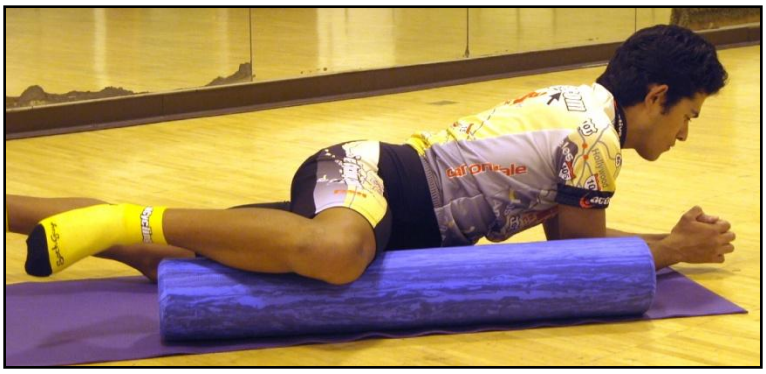
24.)Quads (Quadriceps Group)

- Balance on hands or elbows, face down with quads on foam roller.
- Work your way up the roller, tight core
- To place great emphasis on one leg(right), cross left leg over the back of right or shift body weight to the right
- Breathing pattern same as calf roll



25.) Right inside of Quad (Adductor Group)

- Balance on elbows inside roller, right hip and knee flexed on top of roller
- Roll from hip to knee, slowing for "hot spots"
- Shift weight toward roller for more pleasure
- Same breathing pattern as calf roll
- Keep knee at a 90 degree angle with foot off foam roller to keep pressure on the adductors.

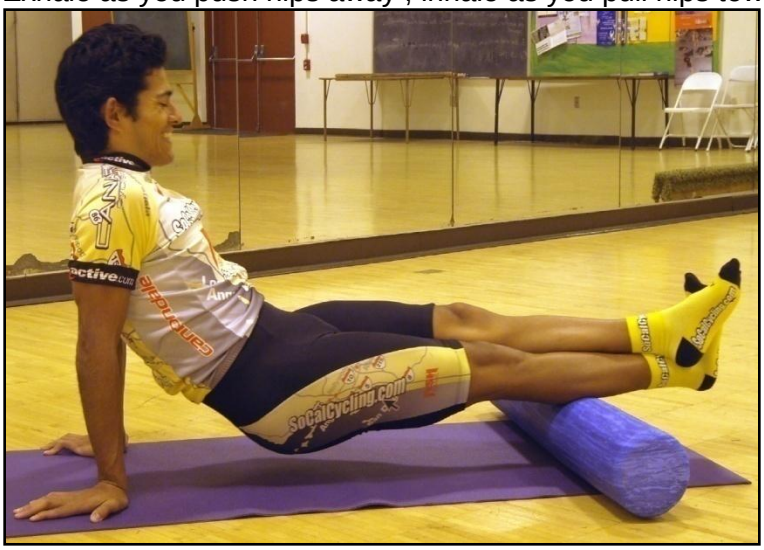


26.) Right back of Knee (acl, pcl, various attachments)

- Set up just like calf roll
- Roll an inch above the knee to an inch below
- Add in corkscrew motion if possible, slow down for "hotspots"
- Same breathing pattern as calf

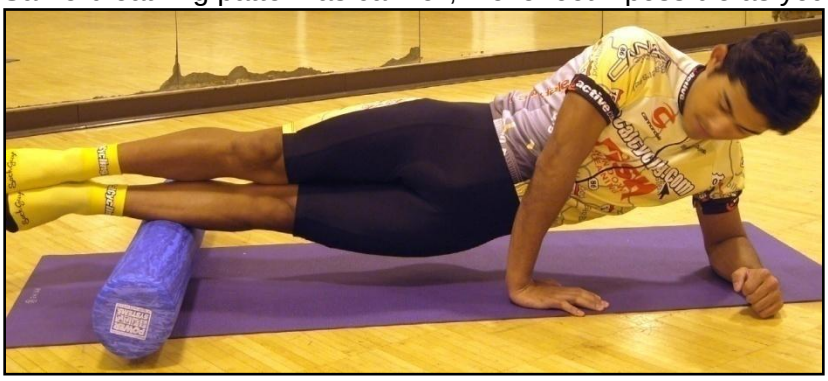
27.) Right Calf (Gastroc/Soleus)

- Balance on both hands, shoulder blades down, tight core
- Roll from knee to ankle if possible, toes pointed up and out
- Corkscrew hips and move foot if possible as you roll
- Exhale as you push hips away ; inhale as you pull hips toward



28.) Right Side Calf (Peronius Group) (picture displays left calf)

- Balance on right elbow, left hand and keep hips up, tighten core
- Roll from knee to ankle, stack legs
- Same breathing pattern as calf roll, move foot if possible as you roll



29.) Right front side of Calf (Tibialis Anterior)

- Balance on two hands and right shin
- Shift body to apply pressure to the muscle part of shin-not bone
- Roll from knee to ankle with same breathing pattern as calf roll but replace knee instead of hips
- to do this keep body angle to the right at 45 degrees

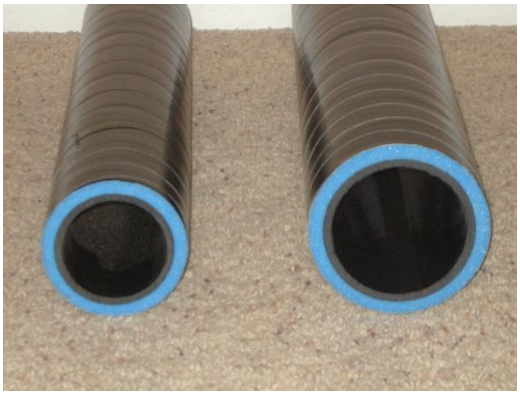
30.) Feet (Plantar fascia)

- Balance standing on foam roller with bent knees and shoulder blades set. Use doorway or wall for support
- Roll feet back and forth spreading toes and making toe circles
- Shift weight back and forth for added pleasure
- Use hands to hold on to wall or pole while applying pressure on sole of feet
- If balance is an issue you can use a round dumbbell to roll the bottom of the foot while other foot on ground surface.
- This works better with a dense foam or PVC pipe to stretch out the plantar fascia.

Types of Foam Rollers

These white foam rollers loose their density very quickly and only last about a month and usually cost $15-20.00 dollars.

The blue foam rollers are more resilient and hold their density for about 4-6 months and cost about $40.00 dollars.



Home made foam rollers cost about $20.00 dollars and hold their density much longer than the blue foam rollers. Plus, you can either make a 3inch diameter or a 4 inch diameter. The 3 inch is a progression from the 4 inch and the roller penetrates deeper into the muscle. These can easily be made using a camping mat from Wal-mart and PCV from your local hardware store.

The Rollaxer is the newest and most innovative system for foam rolling (soft tissue release) on the market. Only 12 inches long the Rollaxer is designed to be the most durable foam roll on the market, while giving you 4 different intensities. The total weight is 7 pounds (www.rollaxer.net). If you are looking for a foam roller that is durable and compact this is the one.