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The FireRescue Fitness Stretch and Recovery Manual



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Fire Rescue Fitness Stretch and Recovery Manual

When you're flexible, your blood flows through your muscles freely without constriction. This increased blood flow aids in muscle recovery. Stretching when coupled with foam rolling is the best prevention for injury.

Together they can work to improve:

Back Pain and Mobility
Shoulder Pain and Mobility
Knee Pain
Hip Pain and Mobility
Muscle Soreness
Exercise Form and Posture
Metabolic and Organ Function
Muscle Strength and Endurance

Program Guidelines and Disclaimer

- 1) Don't do any stretch or movements that you aren't sure how to do. Always get personal instruction from a certified trainer or physical therapist if you need help.
- 2) Don't do anything that hurts or "doesn't feel right". When foam rolling you will feel some discomfort, if you experience pain that does not go away seek medical attention from your doctor.
- 3) Try to stretch and foam roll a minimum of 3 times a week, the key to accelerating recovery is to stay consistent with these exercises. Give this program an honest 2 weeks and you will feel more flexible and agile.
- 4) If you want to start the recovery program but think you have an injury, get medical attention and have a professional therapist rehabilitate your injury before beginning.
- 5) Use proper exercise form, be cautious when stretching, DO NOT overstretch or strain to get into position-- stretch conservatively.

Please Note: The information in this manual is meant to supplement, not replace, proper exercise training. All forms of exercise and stretching pose some inherent risk. The authors advise readers to take full responsibility for their safety and know their own limitations. Before practicing the exercises, activities, and stretches in this book, please be sure that your equipment is well-maintained and do not take risks beyond your level of experience, aptitude, skill and fitness. The exercises in this manual are not intended as a substitute for an exercise routine or treatment that may have been prescribed by your doctor or physical therapist. As with any exercise program you should consult with your doctor before you begin.

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Fire Rescue Fitness Stretch and Recovery Manual

Stretch and Recover

People tend to measure how effectively they've worked out by how sore they are the following days. Let me ask you: How good is a workout that leaves you so sore that you can't workout for the next 3 days? What most people don't realize is that your body improves and adapts to stress on the days you rest. The better and more rapidly you recover, the more quickly your body adapts.

A foam roller is a 3ft. long by 6in. piece of compressed foam. The idea here is that you roll your body weight along the foam roller, massaging through restrictions (adhesions) that may occur in your muscles (especially those of the back) and thus causing the nerves to relax and loosen. This allows blood to flow more freely through the muscles and allow muscles to heal and repair more efficiently. The exercise physiology geeks (peer fitness trainers) refer to this concept as "**Self-Myofascial Release**". You will probably love and hate the foam roller. I encourage you to try it more than a week before formulating an opinion on its effectiveness. Just like a massage, there will be some discomfort when you hit the right spot. Over time the foam roller will get easier. Your muscles will be healthier and have less adhesions (knots) making your body and back feel better. Please read the manual, do the stretches, give foam rolling a try and your body, back and career will thank you.

Foam Roller Basics:

A decade ago, strength coaches, personal trainers and athletic trainers would have looked quizzically at a 36-inch long cylindrical piece of foam and wondered, "What is that for?" Today, nearly every fitness center and most strength and conditioning facilities contain an array of foam rollers of different lengths and consistencies.

What happened to bring foam rollers into prominence? The change has been in the fitness industries attitude toward massage therapy. The industry has been slowly moving away from an injury reaction care mode to a more preventive focus of hands-on soft tissue care. The techniques like massage, Muscle Activation (MAT), and Active Release Therapy (ART) can work wonders for sore or injured muscles.

In addition, the understanding at the elite athlete and fire fighter level is: If you want to stay healthy, get a good manual therapist or chiropractor in your corner. Thus, athletes at all levels are starting to ask for some form of soft tissue care.

What does all this have to do with foam rollers? As coaches and trainers watched elite-level athletes experience success from various soft tissue techniques, the obvious question arose: How can massage be made available to large groups of people at a reasonable cost? Enter the foam roller.

Here is the just of the foam roller exercise.....get a foam roller and use your bodyweight to apply pressure to sore spots.

There are more uses for foam rollers, including injury prevention and performance enhancement. Essentially, foam rollers are the poor man's massage therapist. They provide soft tissue work to the masses in any setting. One of the nice things about using the foam roller is that it can be done on a daily basis. How long your roll is determined on a case-by-case basis.

People are instructed to use the roller to search for tender areas or trigger points and to roll these areas to decrease density and over-activity of the muscle. With a little direction on where to look, most people can easily find the tender spots on their own. However, they may need some instruction on the positioning of the roller, such as parallel, perpendicular, or 45 degrees, depending on the muscle.

The feel of the roller and intensity of the self-massage should be properly geared to the age, comfort, and fitness level of the person. This is one of the pluses of rolling yourself-you can control the intensity of the exercise by modifying your body weight and positioning on the roller.

There is no universal agreement on when to roll, how often to roll, or how long to roll, but generally, techniques are used both before and after a workout. Foam rolling prior to a workout can help decrease muscle density and promote a better warm-up. Rolling after a workout may help muscles recover from strenuous exercise. Personally, I try to use the foam roller anytime my muscles (especially my back) feel tight and sore. Try to get in the

habit of foam rolling at the beginning of your shifts, it will help insure you are “Fit for Duty.”

Stretching along with foam rolling (recovery) helps get the blood flowing, drives nutrients into your muscles (which is why it’s so important to eat right), and accelerates the recovery process.

This stretching and recovery routine was created to accelerate the recovery process and at the same time increase your muscular flexibility.

What you will need

The program requires some inexpensive items: [a foam roller](#) (you could also use a soccer ball or football) and a 8 to 10 foot piece of rope (you can use a [jump rope](#) or go to the hardware store to have them cut you some).

When to do the Routine

The Stretch and Recovery program can be done at home, at the fire house, before and/or after your workout- anytime and anywhere. I personally like to do this routine after my interval cardio sessions ([see a blog post about interval training here](#)) or early in the morning after a short walk. I suggest that you try to perform the stretching portion of the program after some type of activity. It is easier to stretch warm muscles and you decrease your risk of over-stretching (straining). Done with consistency, the Stretch and Recovery Manual will dramatically help you increase flexibility and allow your body to rebuild the damage created from daily stress and workouts.

The Routine

Foam Roller

Foam rolling is like a massage. It uses your own body weight to apply pressure to help roll out muscle adhesions (knots in your muscles). The pressure on the muscle causes the nerves to relax and loosen, allowing blood to flow more freely through the muscle. You will probably love and hate the foam roller. Just like a massage, there will be some discomfort when you hit the right spot. Over time the foam roller will get easier; the healthier the muscle, the less adhesions (knots) you will have to roll on.

Stretching

The stretching routine should be performed after you foam roll. Do all the stretches with on one leg, and then repeat with the other leg. Here's how it's done:

- Wrap the rope around one foot and pull it (easily) into one of the stretch positions...
- Don't hold the stretch like traditional stretches...
- Instead, pull the muscle a bit farther than it would normally go, holding for 15-30 seconds.
- Take a deep breath and exhale, and then return to the starting position.
- Perform 3 reps depending how much time you have and how "tight" the stretch feels.

Follow the program on the following pages. Be sure to always breathe easy and maintain good posture with every exercise and movement.

FOAM ROLLING POSITIONS



Foam Roll- Quadriceps

Muscles worked:

- Great exercise for working the soreness and adhesions from the quads

Preparation :

- Lie face down on the floor with the roller under the front of your thigh
- Support your upper body you're your elbows



Movement:

- Roll over the quad area slowly from your hip to just above your knee. The more uncomfortable it feels, the more the muscle needs the work.
- Hold your position on the “hot” (sore) spots for 20-30 seconds to release the soreness
- Roll slightly on the outside and inside of the quad as well as the front



Finish:

- Remember to stay relaxed through the shoulders and neck and to breathe easy
- Roll one side completely, and then do the other



Coaching Tips: Find a foam roller; it should be firm enough to support your quads. Draw abs tight, squeeze your glutes then slowly roll your quads over the foam roller until you hit a sore “hot” spot. Hold your position on the “hot” (sore) spots for 20-30 seconds to release the soreness. Use your elbows to support your upper body and remember to use good posture as you roll.

Foam Roll- Hamstrings

Muscles worked:

- Great exercise for working the soreness and adhesions from the hamstrings

Preparation :

- Place the foam roll under one or both of your legs
- Support your upper body with your arms as you roll



Movement:

- Let your body slowly glide up and down the roll (as demonstrated in picture). If it is too uncomfortable, uncross your legs and roll both hamstrings at the same time. The more uncomfortable it is the more that muscle needs this.
- Hold your position on the “hot” (sore) spots for 20-30 seconds to release the soreness



Finish:

- Remember to stay relaxed through the shoulders and neck and to breathe easy
- Roll one side completely, and then do the other



Coaching Tips: Find a foam roller; it should be firm enough to support your hamstrings. Draw abs tight, squeeze your glutes then slowly roll your hamstrings over the foam roller until you hit a sore “hot” spot. Hold your position on the “hot” (sore) spots for 20-30 seconds to release the soreness. Use your arms to support your upper body and remember to use good posture and breathe easy as you roll.

Foam Roll- IT Band

Muscles worked:

- Great exercise for working the soreness and adhesions from the side of the legs (IT band)

Preparation :

- Lie on your side with the foam roll under the outside of your thigh. This area is particularly sensitive; trust me it will be to your benefit to roll this area consistently.
- Support your upper body you're your arms as you roll



Beginner Position

Movement:

- Roll along the side of your thigh from the hip to the top of the knee. If you require more pressure, stack your legs on top of each other. Remember, the more uncomfortable it feels, the more the muscle needs the work.
- Hold your position on the "hot" (sore) spots for 20-30 seconds to release the soreness



More Advanced Position

Finish:

- Remember to stay relaxed through the shoulders and neck and to breathe easy
- Roll one side completely, and then do the other



Coaching Tips: Find a foam roller; it should be firm enough to support your body. Draw abs tight, squeeze your glutes then slowly roll up and down the outside of your leg (IT Band) over the foam roller until you hit a sore "hot" spot. Hold your position on the "hot" (sore) spots for 20-30 seconds to release the soreness. Use your arms to support your upper body and remember to use good posture and breathe easy as you roll.

Foam Roll- Glutes

Muscles worked:

- Great exercise for working the soreness and adhesions from the side of the legs (IT band)

Preparation :

- Sit on the foam roll-- Bend your leg and cross over the other for more glute exposure
- Support your upper body with your arms as you roll



Movement:

- Slowly roll over the buttocks from your lower back to the back of your thigh
- If you require more pressure, lean to one side (sit on one cheek). Remember, the more uncomfortable it feels, the more the muscle needs the work.
- Hold your position on the “hot” (sore) spots for 20-30 seconds to release the soreness



Leaning at a slightly different angle

Finish:

- Remember to stay relaxed through the shoulders and neck and to breathe easy
- Roll one side completely, and then do the other



Coaching Tips: Find a foam roller; it should be firm enough to support your body. Draw abs tight, sit on the roller and bend one leg over the other. Slowly roll up and down the glute (butt) area from your lower back to upper leg over the foam roller until you hit a sore “hot” spot. Hold your position on the “hot” (sore) spots for 20-30 seconds to release the soreness. Use your arms to support your upper body and remember to use good posture and breathe easy as you roll.

Foam Roll- Calves

Muscles worked:

- Great exercise for working the soreness and adhesions from the calves

Preparation :

- Place the foam roll under one or both of your lower legs
- Support your upper body with your arms as you roll



Movement:

- Let your body slowly glide up and down the roll
- Move slowly from the back of the knee to the top part of the ankle. If it is too uncomfortable, uncross your legs and roll both calves at the same time. The more uncomfortable it is the more that muscle needs this.
- Hold your position on the “hot” (sore) spots for 20-30 seconds to release the soreness



Cross your legs for more pressure

Finish:

- Remember to stay relaxed through the shoulders and neck and to breathe easy
- Roll one side completely, and then do the other



Coaching Tips: Find a foam roller; it should be firm enough to support your lower legs. Draw abs tight, squeeze your glutes then slowly roll your lower legs (calves) over the foam roller until you hit a sore “hot” spot. Hold your position on the “hot” (sore) spots for 20-30 seconds to release the soreness. Use your arms to support your upper body and remember to use good posture and breathe easy as you roll.

Foam Roll- Lower Back

Muscles worked:

- This exercise improves range of motion of the low back. **If you are experiencing any lower back pain or orthopedic conditions in the spine ... AVOID THIS EXERCISE

Preparation :

- Position yourself on the foam roller at the lower level of the back.
- Perform a drawing in and pelvic floor contraction to aid in spinal stabilization.



Movement:

- Once positioned correctly, slightly roll to one side (so that you are on the muscle that runs parallel to the spine and not the spine itself) and HOLD.
- SLOWLY, roll the foam roller down the side of the spine toward the pelvis, feeling for an area of increased tension.
- Once found, HOLD on this area for 30 sec or until the muscle has relaxed
- Once released, continue to roll to other spots and HOLD your position on the spots for 20-30 seconds to release the soreness



Roll to one side

Finish:

- Remember to stay relaxed through the shoulders and neck and to breathe easy
- Roll one side completely, and then do the other



Coaching Tips: Find a foam roller; it should be firm enough to support your lower back area. Draw abs tight, squeeze your glutes then slowly roll slightly to one side (so that you are on the muscle that runs parallel to the spine and not the spine itself) and HOLD your position on the “hot” (sore) spots for 20-30 seconds to release the soreness. Roll one side completely and then do the other. Use your arms to alleviate some of the bodyweight if needed. Remember to use good posture and breathe easy as you roll. If you have, or are experiencing, low back pain, AVOID this exercise until the pain subsides.

Foam Roll- Upper Back/ Chest Stretch

Muscles worked:

- Good for individuals who want more flexibility in through the spine and chest. **If you are experiencing any lower back pain or orthopedic conditions in the spine ... AVOID THIS EXERCISE

Preparation :

- Maintain good posture throughout the exercise with shoulder blades relaxed and your head on the roller.
- Perform a drawing in and pelvic floor contraction to aid in spinal stabilization.



Movement:

- The stretch involves relaxing the body over the foam roll.
- The hands should be to the side of the body with the shoulders relaxed towards the ground.
- SLOWLY Move from side to side, hold your position on the “hot” (sore) spots for 20-30 seconds to release the soreness



Roll to one side

Finish:

- Remember to stay relaxed through the shoulders and neck and to breathe easy



Coaching Tips: Find a foam roller; it should be firm enough to support your upper body. Draw abs tight, squeeze your glutes and relax your arms and shoulders (as shown above). Slowly move side to side until you hit a sore “hot” spot. Hold your position on the “hot” (sore) spots for 20-30 seconds to release the soreness. Remember to stay relaxed through the shoulders and neck and to breathe easy.

After performing the foam roller positions, move to the stretching.

STRETCHING POSITIONS



Rope Stretch- Hamstrings

Muscles worked:

- Great exercise for increasing range of motion and flexibility of the hamstrings

Preparation :

- Lie on your back with one leg straight and the rope wrapped around your foot
- Hold both ends of the rope with your hands; be sure to keep shoulders relaxed



Movement:

- Be sure to prepare for this move by contracting the abs (pretend you have a pair of tight pants on)
- Actively lift your leg as far as you can, pulling the rope slightly as your leg feels a slight stretch
- Hold it for 15-30 seconds, exhale then slowly lower the leg to the ground
- Repeat this process 3 times with each leg
- Try to keep your opposite leg on the floor; it may help to squeeze your glute (butt) to push that leg against the floor



Finish:

- You should feel a stretch in the back of the leg and calf (if you point your toes down) and possibly in the opposite hip flexor (front of the hip)
- Remember to stay relaxed through the shoulders and neck and to breathe easy



Coaching Tips: Lie on your back with one leg straight and the rope wrapped around your foot. Hold both ends of the rope with your hands, keep your shoulders relaxed. Actively lift your leg as far as you can, pulling the rope slightly as your leg feels a slight stretch. Hold it for 15-30 seconds, exhale then slowly lower the leg to the ground. Repeat this process 3 times with each leg. Try to keep your opposite leg on the floor; it may help to squeeze your glute (butt) to push that leg against the floor.

Rope Stretch- IT Band and Glutes

Muscles worked:

- Great exercise for increasing range of motion and flexibility of the glutes and hips

Preparation :

- Lie on your back with one leg straight and the rope wrapped around your foot
- Hold both ends of the rope with your hands; be sure to keep shoulders relaxed



Movement:

- Be sure to prepare for this move by contracting the abs (pretend you have a pair of tight pants on)
- Actively lift your leg as far as you can, pulling the rope slightly across your body (see picture) as you feel a slight stretch
- Hold it for 15-30 seconds, exhale then slowly lower the leg to the ground
- Repeat this process 3 times each leg
- Try to keep your opposite leg on the floor; it may help to squeeze your glute (butt) to push that leg against the floor



Finish:

- You should feel a stretch on the outside of the leg and in the butt. Keep the toes of both feet pointed toward the ceiling. Keep only one hand on the rope and the other flat on the floor.
- Remember to stay relaxed through the shoulders and neck and to breathe easy



Coaching Tips: Lie on your back with one leg straight and the rope wrapped around your foot. Hold both ends of the rope with your hands, keep your shoulders relaxed. Actively lift your leg as far as you can, pulling the rope slightly across your body (see picture) as you feel a slight stretch in the outer leg and glute. Hold the stretch for 15-30 seconds, exhale then slowly lower the leg to the ground. Repeat this 3 times.

Rope Stretch- Quads

Muscles worked:

- Great exercise for increasing range of motion and flexibility of the quads and hips

Preparation :

- Lie on your stomach so that the non-stretching leg is on the floor
- Wrap the rope around the other leg and slowly pull the rope over your shoulder and the heel of your foot toward your butt



Movement:

- Be sure to prepare for this move by contracting the abs (pretend you have a pair of tight pants on)
- Assist the stretch by pulling rope gently over your shoulder
- Hold the stretch for 15-30 seconds, exhale and return to the starting position
- Repeat this process 3 times with each leg. To get more stretch, lift your knee off the ground while gently pulling the rope



Finish:

- You should feel a stretch on the front of the thigh and hip
- It is very important to keep the abs contracted during the entire movement (pretend you have a pair of tight pants on)
- Try to keep your opposite leg on the floor; it may help to squeeze your glute (butt) to push that leg against the floor



Coaching Tips: Lie on your stomach so that the non-stretching leg is resting on the floor. Wrap the rope around the other leg and slowly pull the rope over your shoulder and the heel of your foot toward your butt. Be sure to prepare for this move by contracting the abs (pretend you have a pair of tight pants on). Assist the stretch by pulling rope gently over your shoulder. To get more stretch, lift your knee off the ground while gently pulling the rope. Hold the stretch for 15-30 seconds, exhale and return to the starting position. Repeat this process 3 times with each leg. Try to keep your opposite leg on the floor.

Rope Stretch- Inner Thighs (adductors)

Muscles worked:

- Great exercise for increasing range of motion and flexibility of the inner thighs and hips

Preparation :

- Lie on your back with one leg straight and the rope wrapped around your other foot--wrap the rope around the ankle and loop underneath your leg
- Hold the rope on the same side as the leg being stretched



Movement:

- Be sure to prepare for this move by contracting the abs (pretend you have a pair of tight pants on)
- Keep your opposite leg straight and on the floor, gently pull the stretching leg away from your body (out to the side)
- Assist the pull with the rope, hold for 15-30 seconds, exhale and return to the starting position
- Repeat this process 3 times with each leg



Finish:

- You should feel a stretch in the inner thigh of the stretching leg
- Try to keep your opposite leg on the floor; it may help to squeeze your glute (butt) to push that leg against the floor



Coaching Tips: Lie on your back with one leg straight and the rope wrapped around your foot. Hold both ends of the rope with your hands, keep your shoulders relaxed. Actively lift your leg as far out as you can, pulling the rope slightly with the same side arm (see picture) as you feel a slight stretch in the inner thigh. Hold the stretch for 15-30 seconds, exhale then slowly return to the starting position. Repeat this 3 times.

Full Body - Chest to Glute Stretch

Muscles worked:

- Great exercise for increasing range of motion and flexibility of the chest, shoulders and torso

Preparation :

- Lie on your side with your arms and knees together
- You may want to support your head and neck with a small pillow for comfort



Movement:

- Be sure to prepare for this move by contracting the abs (pretend you have a pair of tight pants on)
- Keep your knees together and against the floor, gently twist your upper body away from your bent knees
- Hold the stretched position for 15-30 seconds, exhale and return to the starting position.
- Repeat this process 5 times with each leg



Finish:

- You should feel a stretch in the chest, shoulders, low back and torso
- Try to get your back and arm flat to the floor (while keeping abs tight and knees to the floor)



Coaching Tips: Lie on your side with your arms and knees together. You may want to support your head and neck with a small pillow for comfort. Be sure to prepare for this move by contracting the abs (pretend you have a pair of tight pants on). Keep your knees together and against the floor, gently twist your upper body away from your bent knees, hold the stretched position for 15-30 seconds, exhale and return to the starting position. Repeat this process 3x with each leg. Try to get your back and arm flat to the floor (while keeping abs tight and knees to the floor)

Cross Body Shoulder Stretch

Muscles worked:

- Great exercise for increasing range of motion and flexibility of the shoulders

Preparation :

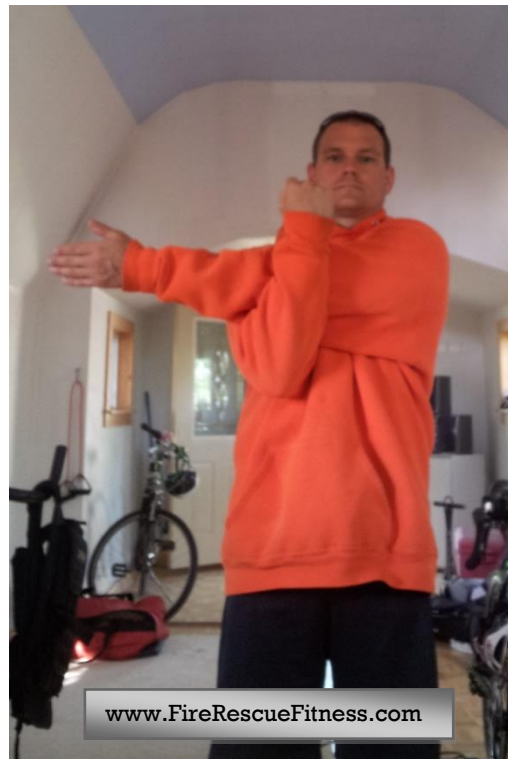
- Stand up straight brace your core

Movement:

- Be sure to prepare for this move by contracting the abs (pretend you have a pair of tight pants on)
- Raise your arm to shoulder height and bring your other arm across the front of your body.
- If using your right arm, your right hand should rest at your left shoulder.
- Take your left arm and place it behind your right elbow.
- Slowly and gently apply pressure just above your right elbow to feel a stretch in the back of the right shoulder.

Finish:

- You should feel a stretch in the upper back and shoulders.
- Hold the stretch for 15-30 seconds, repeat 5x, then switch sides.



Coaching Tips: Stand up straight, brace your abs and slowly bring your arms up to shoulder level. Cross one arm in front of the body and use the other arm to slightly apply pressure to increase the stretch. You should feel the stretch in the back of the shoulder. Hold the stretch for 15-30 seconds and repeat with the other arm. Perform 5 reps with each arm.

Remember to reap the benefits of foam rolling and stretching, you must consistently do them. I suggest performing this routine at least 2 times per week (minimum).
Good luck, stay limber and recover better.