

## EMS STAFF SAFETY NEWSLETTER

January 2019

### Tips and Exercises to Improve your Fitness for EMS Challenges

EMS providers drive around in the perfect stretching and exercise device. Your rig has steps, handles and pull bars galore - essentially everything you and your partner need to get and stay fit. With resolution season upon us again, it's time to turn over a new leaf and set some goals.

Every aspect of your job is 100% physical, so it only makes sense that being fit for duty won't only reduce your chances of getting hurt, but will also lower the rate and severity of injury if you do. The weight of your gear, step height on the truck, and weight of the cot and the patient - everything requires a balance of strength, flexibility and muscular endurance.

The challenge lies in getting fit, and ultimately getting "EMS fit." The job will beat you down if you let it, so getting motivated, staying motivated and determining your resistance points are paramount.

#### THE CHANGE EQUATION

With more than 25 years' experience of training others to get fit, I've come to realize that it's almost impossible to predict the factors that will cause people not to make fitness and wellness a lifestyle, a mindset and, eventually, a habit. Some common ones are lack of time, financial stressors, or even pressure from a spouse or family member.

Since goals are rarely met or maintained,<sup>1</sup> you need to get all the skeletons out of the closet before you set one. Take out a piece of paper and run through this drill. It only takes a few minutes, and it will open your eyes to how to truly succeed and create a lasting behavior change. At the top of the page, write down the change equation:

$$D \times V \times F > R.$$

**D** – Dissatisfaction with your current situation. Write down your dissatisfaction(s) with your health and wellness.

**V** – Vision of your future state; these are positive possibilities. Write down what you want the future to be.

**F** – First steps in the direction of positive change. Write down the first steps you're willing to take.

**All of these variables must be greater than:**

**R** – Resistance to change. Predict where these resistance points might occur, from where and whom.

#### MYTHS DISPELLED

An important first step to establishing a healthy lifestyle is to dispel some of the common myths surrounding exercise. This will ultimately help you to succeed where you may have failed in the past.

No pain no gain. This is perhaps one of the biggest myths in fitness: that to succeed, you have to be covered in sweat and be exhausted and sore for five days afterward. Yes, you do have to work out hard and for at least 30–45 minutes 3–4 days per week, but there's a point of diminishing return.<sup>2</sup> If you work out too hard, too often and combine that with shift work, your body will actually go the opposite direction. You need time to heal, rest and fuel your body after the workout.

I have to be perfect. To get good at something you have to do a lot of that something, and fitness is no different. Expect to fail and embrace failure when it happens because that's how you learn and grow. Remember, as long as you're moving forward, you're still moving.



## BRING IN YOUR PARTNER

Now that we know the how's and why's, you can start to determine your goals and map out a fitness plan. But let's take it one step further: motivate your partner, too.

You probably already work well with your partner. When you respond to calls, your combined efforts deliver the best patient care possible, and you always have each other's back. They're the best "accountability partner" you can have, so why not hold each other accountable for fitness and nutrition goals as well? The only stipulation is that as accountability partners, you must be strict with one another.

Having a partner in fitness will help keep you motivated. People who train in a group or with a partner do much better and build better long-term habits than people who try to grit it out themselves. You have someone to monitor rest periods between sets—45–60 seconds is ideal—and encourage you to push out an extra rep or two. You also have someone to watch your form to make sure you're not cheating. Plus, a friend to share your fitness victories with is always a great bonus.

## BEGINNING YOUR FITNESS REGIMEN

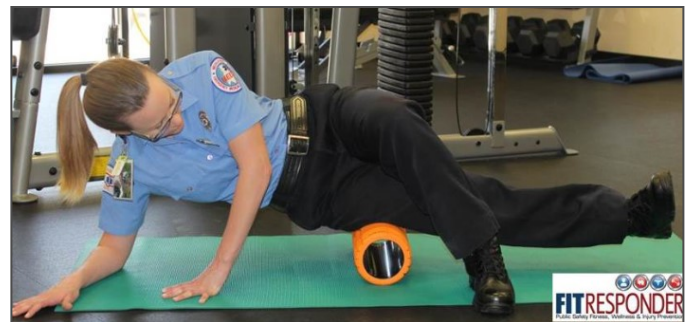
Getting started is easier than you think, and you and your partner can start on the road to physical fitness right now.

a. Pre-shift stretching: You can integrate some quick movement-based, active stretches into your pre-shift routine by following a "check off the truck, check off your body" routine.

In other words, use your daily pre-shift truck check as your golden time to move better, feel better, wake up, reduce pain and lower your chance of injury by adding a few minutes of stretching exercises.

Figure 1: Active stretching exercises  
(Figures courtesy Bryan Fass)

b. Foam rolling: Wouldn't it be awesome to give yourself a massage before every shift or every workout? It's possible with foam rollers, which have been around for years and are used throughout professional sports, in physical therapy and by weekend warriors. Spending 60–90 seconds on each calf, glute, inner thigh/hip-flexor and upper back will both increase range of motion and tissue temperature. Foam rolling is essentially your warm up and your massage in one tool; it's arguably the best \$40 you'll ever spend.



c. Mobility matters: The next step is to work on some mobility drills. The beauty of mobility training is that when done properly, they can build both mobility - the ability for your joints and soft tissue to move well - and stability.

Stability is the key to almost everything in fitness because without the ability to stabilize the body and control movement, you'll only cause pain and injury. You have to have the mobility and stability to stop whatever movement you started and control the load.

The Turkish get up exercise is a perfect movement that will build mobility, flexibility and stability. (See Figure 2, on the next page.) Do three repetitions on each side with a light weight or kettle bell.

**Figure 2: Turkish get up**



**Steps:**

1. Lie on the floor with your arm straight up over your chest and one leg bent at the hip and knee.
2. Thrust the bent leg forward raising your upper body off the floor and coming up into a seated position.
3. Come up onto one knee with your arm straight.
4. Stand upright with your arm fully extended overhead.
5. Reverse the steps to lower back down to the start position.

Complete all reps on one side before switching to the other side.

**d. Activate:** Now that you move well, can move objects well and can control the movements you started, it's time to finally start training. If you're tempted to skip directly to training, don't. The above steps are critical first steps in a scientifically designed fitness program and you and your partner should include them in all your training.

To get you started, Figures 3 and 4 provide you with a two-week protocol that will make you stronger, move better and feel better.

You can only move patients well if you move well, so learning to have good postural control is paramount. All you'll need for these workouts is resistance tubing bands. Week 1 should be three sets of 15 reps with 45-60 seconds rest between sets. Do this routine two times per week with 20 minutes of cardio right after. Week 2 is similar, but we're adding more resistance and building on the muscular stability and endurance you built in week 1. You can alternate these workouts for a month before moving on to more advanced exercises.

**Figure 3: Week 1 exercise routine**

For each exercise, do three sets of 15 reps with 45–60 seconds rest between sets. Do this routine two times per week with 20 minutes of cardio right after.

**Exercise 1: Glute bridge**

**Steps:**

1. Lie on your back with your knees bent and feet flat with tubing across the top of your hips, holding each end on either side of the floor.
2. Raise your hips off the floor, trying to make a straight line from your hips to your shoulders.
3. Lower yourself back to the floor and repeat.



## Exercise 2: Quad hip abduction

### Steps:

1. Kneel on all fours with both knees and hands on the floor.
2. Raise one leg up and out to the side, keeping your knee bent and moving from the hip.
3. Hold briefly, then lower and repeat. Complete all reps on one side before switching to the other side.



## Exercise 3: Step down

### Steps:

1. Stand upright on a bench with one foot off to the side and your arms straight.
2. Lower your body down into a squat position to where your foot just touches the floor, keeping your back flat.
3. Push off your top foot to return to the upright position. Complete all reps on one side before switching to the other side.





## Exercise 4: Foot up split squat

### Steps:

1. Stand upright with one foot on a bench (or the bumper of your rig) behind with your arms by your sides.
2. Drop your body down toward the floor, bending at your hips and knees and leaning your torso slightly forward.
3. Push off your front foot to return to the start position. Complete all reps on one side before switching to the other side.



## Figure 4: Week 2 exercise routine

For each exercise, do three sets of 15 reps with 45–60 seconds rest between sets. Do this routine two times per week with 20 minutes of cardio right after.

### Exercise 1: Turkish get up

See Figure 2, above, for this exercise.

### Exercise 2: Close pulldown

### Steps:

1. Kneel on the floor holding the handles using a close grip with your arms extended straight overhead.
2. Pull the handles down in front to the sides of your chest.
3. Straighten your arms returning the handles to the top position, going through a full range of motion.



## Exercise 3: Extension

### Steps:

Start in a squat position holding the handles between your feet with your arms straight.

Stand upright, raising the handles overhead with your arms straight.



## Exercise 4: Lunge

### Steps:

1. Stand upright holding one handle in both hands with your arms straight out in front and the tubing attached to one side.
2. Take a step forward, dropping your back knee to the floor and leaning your torso slightly forward with your weight on your front leg.
3. Push off your front foot to return to the start position, keeping your arms straight out front. Complete all reps on one side before switching to the other side.



## Exercise 5: Pallof press

### Steps:

Stand upright holding a handle in both hands at your chest, with elbows bent and the other end of the tubing connected to a solid object off to one side.

Press the handle out in front to a straight arm position while maintaining a stable upper body position.

Return the handle back to the start position and repeat. Complete all reps on one side before switching to the other side.



## STAY THE COURSE

To succeed in any fitness program, the final step is to rewire your brain to think of fitness and wellness not as “working out” but as critical training to help you do your job well. Working out is a common day-to-day thing, and thinking of your fitness regimen as such will lead to failed resolutions. Just like your on-the-job training, your fitness regimen should run in preplanned phases.

When I was a paramedic, I worked a long week of 12-hour shifts followed by a short week of 12-hour shifts. On the long weeks, I programmed in more cardio and a lot of mobility work to stay loose and feel good without creating any soreness or excessive muscle fatigue. This allowed me plenty of time to heal and recover from a busy week. On the short weeks, I programmed in more intensity and heavier weights because I had the extra days off to recover and heal. You can follow the same approach for 24-hour shifts—it’s the work to rest ratio that really matters (plus some good nutrition, of course).

Structuring planned phases of training will keep your regimen fresh, fun, new and challenging. This way, you never get bored; you avoid over-training and can even program your training around your shift schedule. An intensity month followed by a heavy lifting month broken up by cardio weeks is a great way to constantly meet and exceed your goals.

## References:

1. Shilts MK, Horowitz M, Townsend MS. Goal setting as a strategy for dietary and physical activity behavior change: A review of the literature. *Am J Health Promot.* 2004;19(2):81–93.
2. Gambetta V: Athletic development: The art and science of functional sports conditioning. *Human Kinetics: Champaign, Ill.,* 69–71, 2007.

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