



## Firefighter Fitness

Fitness for firefighters can be a controversial topic. As physicians we are often asked what the best “workout” is for a firefighter. The short answer is that there is no one workout that fits everyone’s needs. In this article we will discuss our philosophy about exercise and try to clear up some misconceptions about what it means to be fit.

Before we begin, let’s take a step back and talk about fitness. What does fitness mean to you? To me, there are many different definitions of fitness, and they all depend on your goal.

Here are 2 examples:

No one would argue that a marathon runner is a fit person. You have to be in order to run 26.2 miles. But, no one would argue that a sprinter is a fit person as well. You have to be in incredible shape to run that fast in a 100 meter, 200 meter or 400 meter race. However, a sprinter and marathon runner look very different, right? I know that’s a pretty obvious statement, but have you ever wondered why that is? Well, it’s because their end goals are different, so their training is different. A marathon runner is looking for endurance to last those 26.2 miles. So his main focus in training is long slow running. A sprinter could care less about endurance, he is after power and speed. Their focus is more on shorter more intense workouts and gaining more power (strength).

While both marathon runners and sprinters are fit, you will naturally gravitate to one or the other in terms of which body type you find more attractive.

The same thing can be said for gymnasts, triathletes, cyclists and bodybuilders. They are all fit people who train for a specific event or situation. While this may sound like a common sense fact, why is it that many people do not approach their training with this in mind?

In our line of work, we perform a lot of firefighter exams every year.

As part of the comprehensive exam, we give one on one counseling in which we discuss with firefighters their exercise regimen and goals. Regardless of whether they want to lose weight, increase their “cardio” or gain muscle mass, I usually get an answer that involves walking or running 2-3 miles, using an elliptical machine or treadmill, and some limited, usually upper body, strength work.

So how does the job of a firefighter compare to the definitions of fitness listed above? Well, in my opinion, it tends to be more explosive than long and slow endurance type of work. Firefighters can be sitting around the firehouse at the kitchen table, receive a call and be dressed out, carrying heavy hose, climbing ladders, wearing SCBA air packs and walking through a burning building minutes later. Definitely not your long slow endurance type of work. And if you’ve ever seen a firefighter combat challenge, you will know that it is very intense and limited to a few minutes of very hard work.

So, if this tends to be more explosive type work than long slow distance type of work, why is it that many firefighters do not train specifically for their job?

### ON-SITE FIREFIGHTER PHYSICALS



When I present them with the above scenario between a marathon runner and sprinter, most firefighters have no problem identifying more with a sprinter than a marathon runner when it comes to job performance. Yet, most firefighters don't do job specific training. There is no sprinting, hill work, dragging sleds or pushing prowlers or tractor tire flipping, which are all great job specific exercises.

So the moral of this story is to consider your job or goals and pick a program that fits your needs. Don't just pick a diet program or exercise regimen because it worked for your neighbor or friend. This can be a recipe for disaster.

**Do something.** Many firefighters do nothing at all for fitness and it shows. Their blood pressure is high, they are overweight, have poor flexibility, poor muscular endurance and low aerobic endurance. These firefighters just need to do something, anything to improve their fitness. We often suggest a program of walking and stretching to start. Generally this would be a program of brisk walking 40 minutes or more at a time at least 4 days a week. The important part is to just start moving. If you already exercise, consider some job specific training.

A good job specific workout should emphasize high intensity with short recovery periods. This can be applied to any activity. Instead of just jogging try running for a minute followed by two minutes of jogging or walking. Instead of just lifting light weights try to keep your body in motion with a jump rope or other cardio exercise between weight sets. The emphasis is on high effort with quick recovery. There are workouts that can be followed that meet this standard. Programs such as P90X, P90X3, CrossFit.com and Rosstraining.com offer great examples of workout routines and programs.

These workouts develop aerobic capacity, muscular endurance and muscular strength. Alternatively some departments have designed their own workouts that include very job specific tasks like, hose pulls, climbing stairs with hose packs and swinging a sledge hammer.

**Consistency** is the most important element to fitness. Firefighters often get motivated, begin to get fit and then lose motivation. This results in weight gain and losing whatever progress they made. As physicians, we would much prefer the slow and steady approach to fitness. Firefighters who are consistent with fitness have two things in common with their workouts. The first is that part of their workout regimen involves something they enjoy and look forward to. The second is that they tend to vary their workouts to keep them interesting. We recommend shaping a workout program that is based on the firefighter's interests.

**Don't hurt yourself.** There was a recent report written in one of the Occupational Medical Journals. It reported that firefighters were more likely to be injured performing exercise than fighting fires. This is a misleading headline. This is likely true of almost any profession, police, pilot or doctor. This does not mean that exercise is harmful but it is a good reminder to perform exercise with care. Common exercise induced injuries fall into a few basic categories and in most cases could have been prevented. The first is muscular strains, sprains and tears. These often happen as a result of overstraining muscles that have not been properly stretched or conditioned. The second fall into the grouping of over competitiveness. Firefighters tend to be a competitive group and sports like basketball tend to devolve into very aggressive play that often results in injury. One local department banned all ball sports after a rash of basketball related injuries. The other most common category is actually overtraining. Individuals who perform one specific exercise too often put themselves at high risk for overtraining injuries like stress fractures or chronic tendonitis.

#### ON-SITE FIREFIGHTER PHYSICALS



Fitness is more important than fatness. Often we see firefighters that may be carrying a few extra pounds but are in fantastic shape. This is the firefighter that can outwork and outlast almost everyone in their department. Conversely we all know people who look to be in great shape but when it comes to actual work fall far short of what is expected. This is why we promote job specific training as at least a part of every firefighter's workout. The job of the firefighter is high intensity bursts of activity followed by either lower intensity periods or rest periods. This means that you need good aerobic capacity, good strength and good muscular endurance. We often use the analogy of a firefighter as a cross between a runner and a power lifter.

Remember anything is better than nothing, and the most important component is consistency. Don't hurt yourself and design your workouts around high intensity bursts with short recovery periods. In the next article we will look at elements of successful departmental fitness programs.

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