



# SPECIAL REPORT

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# 10 BIGGEST MISTAKES FIREFIGHTERS MAKE WITH THEIR FITNESS

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Authors of Firefighter Functional Fitness



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“ *The deck of cards is stacked against firefighters and their health. When we took the firefighter oath, we never knew that our life expectancy would automatically be reduced by the hazards that confront us.*

*Take your pick:*  
**heart disease, obesity, diabetes, cancer, inhalation hazards, dehydration, overexertion, heat stress, sleep deprivation and disorders, traumatic and thermal injuries, psychological and emotional stress, PTSD, infectious disease, physical assault.**

*...On and on, the list of hazards and ‘career side effects’ continues with almost no end in sight.”*

–David J. Soler  
\*Excerpt from  
*Firefighter Functional Fitness*



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The fire service is facing a health crisis of epidemic proportions. Decade after decade, more than 50 percent of firefighter line-of-duty deaths are caused by heart attacks and strokes. For every fatal cardiac event an on-duty firefighter suffers, there are 25 nonfatal (yet life-altering) cardiac events that firefighters suffer (Source: NFPA).

Firefighter obesity and diabetes continue to be on the rise. The National Volunteer Fire Council estimates more than 75 percent of the American fire service is overweight, with roughly 34 percent classified as “obese.” The incidence of firefighter cancer continues to rise, and low fitness, poor nutrition, and inadequate hydration all have their respective roles.

As firefighters, we must ask ourselves:

- Why is there such an epidemic?
- Can we prevent it from continuing to happen?
- What is the solution?
- Can we directly impact our health and fitness, or are we destined for a tragic outcome?

“Now more than ever, we as firefighters must take ownership of our health by making our fitness a top priority. Our lives depend on it.”

—Firefighter Functional Fitness

When it comes to fitness, firefighters typically fall into one of five categories:

1. They lack the motivation to make fitness a priority.
2. They want to make their fitness a priority, but they lack the knowledge to start and maintain a program.
3. They have suffered an injury that physically hinders them from improving their fitness and maintaining a regimen.
4. They regularly exercise, but their workout program is not specifically tailored to the job of firefighting.
5. They are functionally fit firefighters who use *Firefighter Functional Fitness* to optimize their fireground performance.

If you fall under categories one through four, we will help coach you to either get out of the recliner and get started, stay with a program, or maximize your fitness by making it functional and specific for the job.

## CREATING A HEALTHIER FIRE SERVICE—ONE FIREFIGHTER AT A TIME

We believe the current health epidemic the fire service is facing is simply unacceptable. It is our passion to create a healthier fire service—one firefighter at a time. That is why we wrote *Firefighter Functional Fitness: The Essential Guide for Optimal Firefighter Performance and Longevity*, and that is why we want to share the *10 Biggest Mistakes Firefighters Make With Their Fitness*. This document reveals the biggest pitfalls firefighters have made with their health. Within each mistake, you will find tips on how to either avoid them or how to head in the right direction if you have already made them.

# 10 BIGGEST MISTAKES FIREFIGHTERS MAKE WITH THEIR FITNESS

## MISTAKE #1: NOT MAINTAINING A FITNESS PROGRAM



Illustration: Paul Combs, ArtStudioSeven.com



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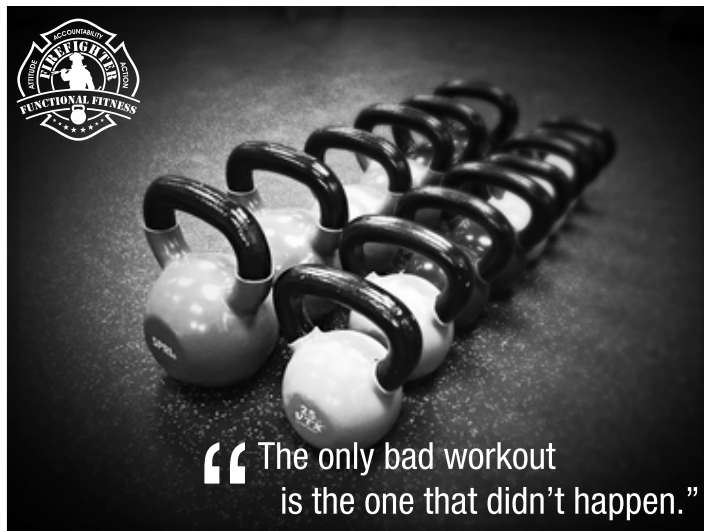
In the fire service, a great contradiction exists: There are those firefighters who physically train their bodies to initially “get the job,” but then neglect their fitness once they are “on the job.” Unfortunately, this phenomenon is nothing new; we have all witnessed it before.

There are numerous causes for this behavior:

- Firefighters overestimate their current level of fitness.
- Firefighters may have a false sense of security because they have been able to “get by” with low fitness levels.
- Firefighters do not fully understand the cardiovascular and physiological strain of firefighting.
- They are complacent or lazy.

“Working out is about having the right attitude, a high level of accountability, and taking action—not making excuses.”

—Firefighter Functional Fitness



As most veteran firefighters will share—time is not on our side. Through the natural effects of aging, all of the following elements of our fitness decrease as we get older:

- Muscle strength and mass
- Cardiovascular capacity
- Flexibility
- Rate of metabolism
- Peak performance

Therefore, it is imperative that all firefighters, young and old, make their fitness a priority throughout their entire fire service careers.

## FIREFIGHTER FUNCTIONAL FITNESS TIP

Through their daily attitude, accountability, and actions, functionally fit firefighters demonstrate that they are champions of firefighter fitness to everyone around them. They maintain a regular fitness program, and they do it with *Firefighter Functional Fitness*’ foundational principles.

Don’t know where to start or how to maintain a fitness regimen? Keep reading—we will give you all the tools and proper mindset to achieve fitness success.

*Be a Functionally Fit Firefighter.*

*Do it for your citizens, do it for your family, do it for your fellow firefighters—because they deserve nothing less than your best.*



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## MISTAKE #2: NEGLECTING NUTRITION

“ You can work out as much as possible, but you can never outwork a poor diet.”

—Firefighter Functional Fitness

Let's be honest, *firefighters love to eat*. We all may not agree on tactics, and there are some who do not like to train— *but all firefighters love food*. Unfortunately, this love of food has become a “big” problem—so much so that more than 75 percent of the American fire service is considered overweight.

As a firefighter, you could exercise every day of the week. However, if your diet consists of nothing but pizza, cheeseburgers, soda, and ice cream, then most of your hard work in the gym will be for naught. The truth is that our daily nutritional choices affect our fitness, health, and performance more than we know.

“ Exercising is a step in the right direction. A poor diet is taking two steps back.”

—Anonymous



## FIREFIGHTER FUNCTIONAL FITNESS TIP

Proper nutrition is about eating the *right foods* in the *right amounts*, so our bodies are provided with all of the *right nutrients* they need for the *right performance*.

We are here to tell you that sensible nutrition doesn't have to be complicated or confusing. The choices we make with our food directly impact our future performance—*not only for tomorrow, but 10, 20, and 30 years down the road*. *Firefighter Functional Fitness* contains a wealth of easy-to-understand nutritional information that any firefighter can easily adopt.



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## MISTAKE #3: BECOMING CASUALTIES OF CONVENIENCE



“Which is easier: Ordering a pizza or buying the ingredients and cooking a healthy, balanced meal?”

In our fast-paced society, we have become too reliant on convenience; this is especially evident with our daily food choices. Whether it is because we are short on time, run too many calls, get too tired, or don't have a plan, we tend to gravitate towards foods that are quick and convenient.

The unfortunate truth is that most foods of convenience are over-processed and high in preservatives, calories, refined carbohydrates, added sugar, and more. These are the same exact foods that contribute to heart disease, obesity, diabetes, and cancer.

## FIREFIGHTER FUNCTIONAL FITNESS TIP

Functionally fit firefighters take the high road. They make the extra effort to buy natural, unprocessed foods from the grocery store. They regularly plan their meals and prepare them at home or at the firehouse. As a rule of thumb, aim to prepare 3 to 4 healthy, balanced meals throughout the week, with enough for leftovers for lunch the next day.

Check out *Firefighter Functional Fitness* for “25 Tips for Nutritional Success.”



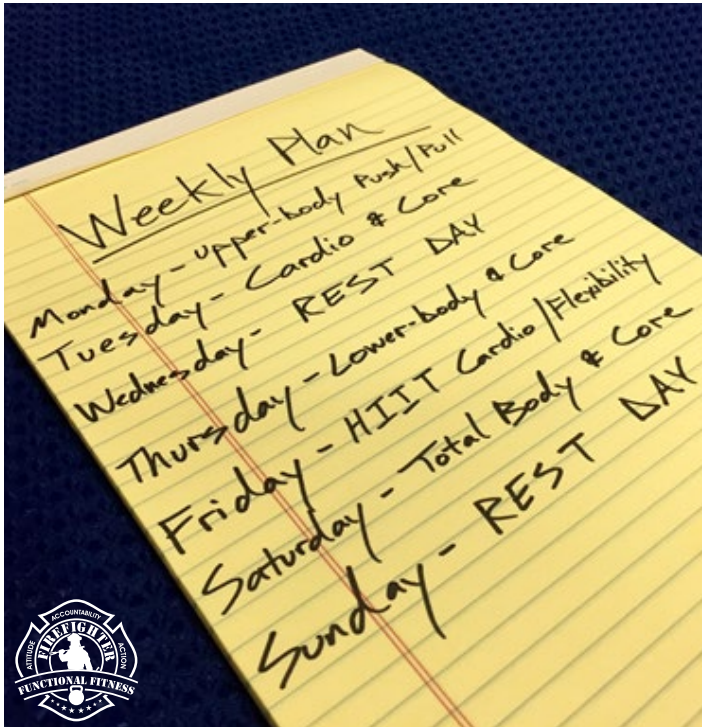
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## MISTAKE #4: FAILING TO PLAN



*Functionally fit firefighters are successful because they plan out their weekly workouts.*

“If you fail to plan, you are planning to fail!”

—Benjamin Franklin

For those firefighters who do workout, there are many who simply try to “wing it” when going into their workouts. Unfortunately, they don’t have specific goals of what they want to accomplish; and therefore, they lack a specific plan for improving their fitness. When going to the gym, these individuals randomly go from machine to machine (or exercise to exercise), without direction and sense of purpose. What results from these sessions are inefficient and ineffective workouts that are a waste of time and energy.

## FIREFIGHTER FUNCTIONAL FITNESS TIP

Follow these tips for maximizing your workouts:

- Decide how many total days per week you are going to exercise. Do not waiver from this commitment.
- Plan out your weekly and daily workouts according to *Firefighter Functional Fitness*’ comprehensive approach. Work on developing core strength, cardiovascular capacity, flexibility, and functional strength training that directly apply to firefighting duties.
- For any movement, exercise, or stretch you choose to do, ask yourself these three questions—*Is it safe? Is it effective? Is it functional?* If you can’t answer “yes” to all three, eliminate it from your regimen.
- Don’t overdo it: Balance “workout days” with “rest days.” Doing too much, too fast leads to injury and burnout syndrome.

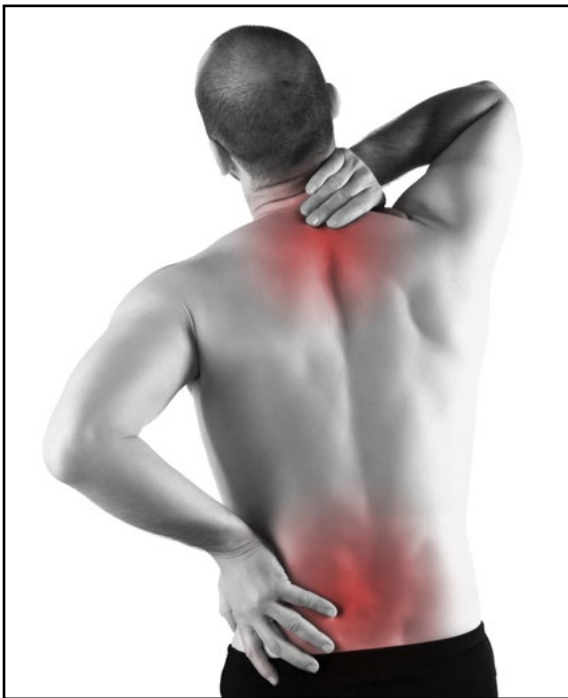




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## MISTAKE #5: NEGLECTING CORE STRENGTH



“Your core is your center, and it is essentially the foundation of your functional fitness.”

—Firefighter Functional Fitness

Unfortunately, most firefighters tend to overlook core strength. For firefighters who exercise regularly, most focus on strength training of all body areas except for the core (e.g. chest, biceps, triceps, shoulders, quads, calves, etc.). However, any fitness regimen that neglects core strength is missing a big piece of the puzzle.

A weak, inflexible, and unbalanced core will adversely affect our upper and lower-body strength, agility, and performance. Like links of a chain, our core connects our legs to our upper body and arms. If our core is weak and nonproductive, the other parts of our body will be compromised. Core strength is also necessary for optimal balance, stability, flexibility, posture, body ergonomics, and injury prevention.

## FIREFIGHTER FUNCTIONAL FITNESS TIP

A functionally fit firefighter uses the following methodology to develop functional core strength:

- Perform core training 2 to 4 times per week, 10 to 30-minute sessions
- Work **all** of the core: front, back, sides, high, and low. Don't solely focus on “abs.”
- Engage the core whenever possible (i. e. bracing and tightening the abdomen).
- Ideal core exercises include planks, side planks, side bends, oblique twists, bridge pose, downward dog pose, supine leg raises, etc.



The standard plank is an excellent exercise that develops core strength.



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## MISTAKE #6: UNDERESTIMATING THE IMPORTANCE OF FLEXIBILITY

Sprains, strains, and back injuries are the leading injuries for firefighters. A lack of flexibility not only leads to an increased risk of these injuries but also increases their severity, recovery duration, employer and employee costs, and lost time. Furthermore, a lack of flexibility decreases mobility, which is especially important since a firefighter's protective ensemble already restricts mobility and range of motion.

While we cannot eliminate or avoid all line-of-duty injuries, functionally fit firefighters understand that we can significantly manage our risks by incorporating regular flexibility training into our fitness routines.

There are three primary methods that *Firefighter Functional Fitness* uses to improve flexibility:

1. Regular cardiovascular capacity training
2. Stretching exercises
3. Functional yoga

All three combine to provide a balanced approach to increasing firefighter flexibility and mobility.

### FIREFIGHTER FUNCTIONAL FITNESS TIP

Functionally fit firefighters use these basic flexibility training principles:

- Prior to working out, warm up with 5 minutes of foam rolling, brisk walking, jogging, biking, etc., before any type of stretching.
- After warming up your muscles, continue to warm up using dynamic stretches that closely relate to the imminent workout (e.g. arm circles, chest openers with a dowel rod, air squats, lunges, etc.)
- After the conditioning phase of your workout, perform static stretches during the cool-down phase that apply to the joints and muscle groups that you just used. Static stretches are the “reach and hold” stretches that most are familiar with.

“Functionally fit firefighters must be able to bend without breaking.”

—Firefighter Functional Fitness



The butterfly stretch is ideal for loosening the groin after a lower-body workout.

- Hold each static stretch for at least 30 seconds and repeat each stretch for a total of 2 to 3 rounds.
- Stretch to mild or moderate discomfort, but not to pain. Stretch slowly and cautiously to loosen joints and lengthen muscles.
- Take your time, relax, and breathe normally when stretching. When you exhale, sink a little deeper into each stretch.
- Stretch at least 3 to 4 times a week. Use dynamic stretching during warm-ups, static stretching during cool-downs and also complete a stand-alone long flexibility training session (e.g. 30 to 60 minutes of functional yoga).



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## MISTAKE #7: SOLELY FOCUSING ON BUILDING MUSCLE MASS AND PHYSIQUE



Illustration: Paul Combs, ArtStudioSeven.com

Functionally fit firefighters know strength training, also known as resistance training, is an integral part of achieving and maintaining functional fitness. But the old approach to strength training does not provide maximum benefit for firefighters. Making your strength training *functional* is a vital part of improving your fireground performance, effectiveness, and efficiency.

*Firefighter Functional Fitness* is not a “traditional” workout program. Functionally fit firefighters are not concerned with having six-pack abs, a beach body physique, or aiming to hit a “perfect number” on the scale. Similarly, they avoid performing unsafe exercises and movements, lifting excessive amounts of weight, and trying to be stronger or faster than anyone else.

*Firefighter Functional Fitness* is a practical and comprehensive approach to firefighter fitness that uses real-life activities, positions, and exercises to best prepare firefighters for optimal firefighter performance.

“Functional strength centers around the concept of performance, not building muscle mass.”

—Firefighter Functional Fitness

1. Core Strength
2. Cardiovascular Capacity
3. Flexibility
4. The Push
5. The Pull
6. The Lift
7. The Carry
8. The Drag



The Big 8 of Firefighter Functional Fitness

## FIREFIGHTER FUNCTIONAL FITNESS TIP

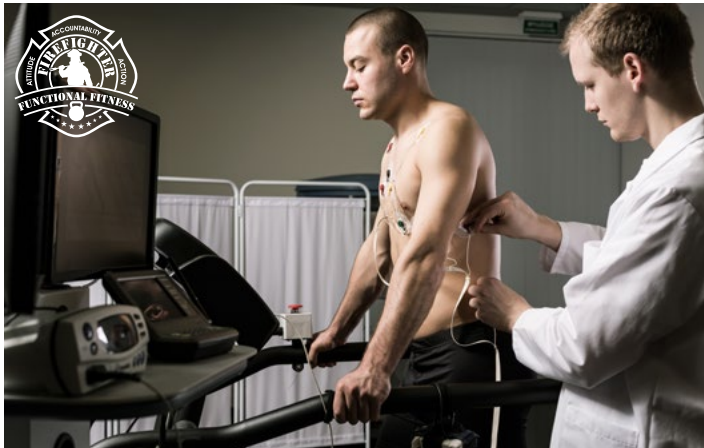
Functionally fit firefighters use *The Big 8* concept as the roadmap to their success. The Big 8 will help all firefighters improve their fitness for duty in a simple and systematic manner. It brings together eight functional categories that are directly applicable to firefighters:



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## MISTAKE #8: NOT GETTING NFPA 1582-COMPLIANT MEDICAL EVALUATIONS



**“** *When combined with a firefighter's extreme physical workload and hot environment, the risk of a sudden cardiac event or death increases 136 times during firefighting activities.* ”  
 —Dr. Stefanos Kales

**“** *It is a significant fact that annually nearly half of all firefighter fatalities occur as a result of medical emergencies.* ”  
 —International Association of Fire Chiefs

*What can you do if your department does not provide an annual NFPA 1582-compliant medical evaluation?*

Functionally fit firefighters are champions of health and wellness. They understand that proper medical evaluations are critical, foundational components of their health and fitness. These evaluations are preventative, lifesaving measures that every firefighter and fire department must implement. However, like many other aspects of functional fitness, our medical evaluations must be relevant to the tasks we perform as firefighters.

Fire departments that implemented an annual medical evaluation program averaged a 23 percent decrease in the cost per injury claim and a 28 percent decrease in days lost due to injury and illness as compared to pre-implementation data. The overall return of investment yielded a savings ratio of 1:2. Therefore, every \$1 spent on annual medical evaluations resulted in a fire department savings of \$2 (Source: “A Fire Department’s Guide to Implementing NFPA 1582,” Jake Rhoades and Kim Favorite).

Functionally fit firefighters not only understand the importance of annual medical evaluations but they also take the initiative to get it done, even when their department doesn’t provide them. There is much more to a firefighter physical than simply seeing your family doctor to get “signed off.” All too often, seemingly “fit” firefighters have sudden cardiac events. While we cannot control every risk factor, the more proactive we are about our health, the better the chances are that underlying medical issues will be detected before it is too late.

As an added benefit at the end of this report, we have created a fact sheet that you can print and take with you to your doctor if you do not have access to an occupational physician. Insist that the components found in this fact sheet are included in your medical evaluation.

**“** *There are 8,760 hours in a year. A 2-hour annual physical amounts to around 0.0002% of that time.* ”  
 —Firefighter Functional Fitness

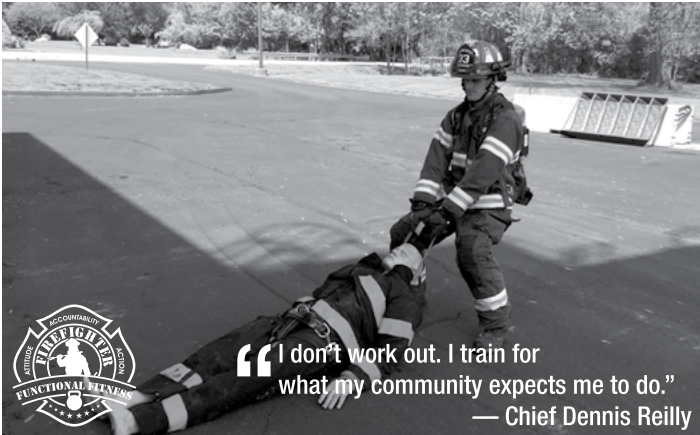
\*See this report’s addendum for the fact sheet to bring to the physical. Additional costs maybe incurred for getting those tests and evaluations.



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## MISTAKE #9: BELIEVING THAT WORKOUTS HAVE TO TAKE PLACE “IN A GYM”



Some firefighters resort to using only the equipment that is available at their local gym. This typically translates to solely using weight machines and “cardio” machines. These machines can be easy and convenient, but they can also limit a firefighter’s overall performance and functionality.

Alternatively, firefighters may believe if their firehouse doesn’t have fitness equipment they cannot get a great workout. This simply is not true. Firefighters are incredibly innovative and adaptable. One only needs to use their imagination and creativity to take advantage of all of the not-so-conventional “fitness equipment” that every firehouse offers.

## FIREFIGHTER FUNCTIONAL FITNESS TIP

Functionally fit firefighters use a wide array of training modalities, fitness equipment, and firefighting tools to maximize their fitness. *Firefighter Functional Fitness* uses all of the following:

- Firefighting equipment (SCBA harness and cylinder, fire hose, hand tools, hydraulic tools, saws, rope, ladders, etc.)
- Free weights (dumbbells, barbells, kettlebells)
- Bodyweight exercises (push-ups, pull-ups, core exercises, air squats, lunges, etc.)
- Cables resistance machines
- Resistance bands
- Medicine balls
- Suspension strap systems (TRX® or WOSS® straps)
- And more

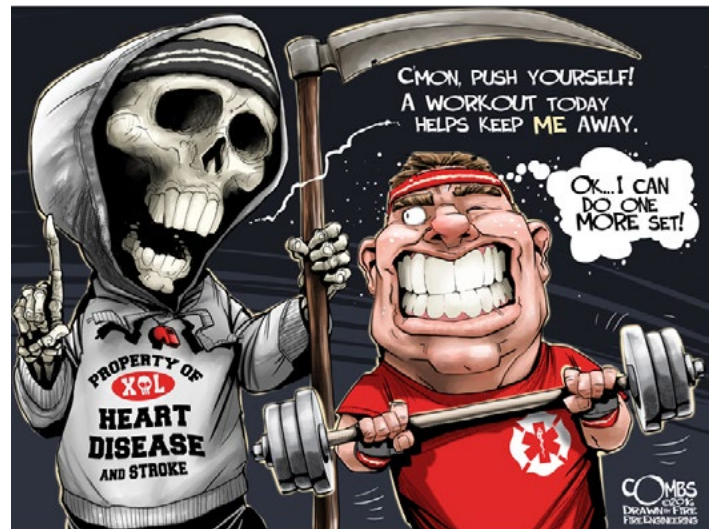


Illustration: Paul Combs, ArtStudioSeven.com

Much of the equipment listed above is easily accessible to most firefighters. By using a combination these modalities and their creativity, functionally fit firefighters make great workouts happen outside of “the gym.”



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# 10 BIGGEST MISTAKES FIREFIGHTERS MAKE WITH THEIR FITNESS

## MISTAKE #10: NEGLECTING HYDRATION



“ Firefighters can sweat out almost 2 liters per hour while carrying out firefighting operations.”

—Firefighter Functional Fitness

Research has shown most firefighters show up to the firehouse already in a dehydrated state. The fact that firefighters love to drink coffee, sugary drinks, and energy drinks only compounds their dehydration. Dehydration on the fireground is a serious and sometimes life-threatening issue. Many firefighters are not aware dehydration increases their risk of heart attack, stroke, and cancer.

## FIREFIGHTER FUNCTIONAL FITNESS TIP

Just like everything else in the fire service, proper hydration requires a proactive approach. Functionally fit firefighters know that it starts before the incident, it is impacted by firefighter rehabilitation efforts during the incident, and it requires the flushing of toxins after the incident is over.

Functionally fit firefighters use these principles to stay hydrated:

1. Use a beverage container with a 20 to 30-ounce capacity. Doing so will help you keep track of your daily water intake. Fill it with water and have the goal to drink 4 or more containers per day.
2. Be proactive about hydration. Drink before thirst sets in.
3. Drink water before, during, and after exercising.
4. Drink even more fluids than you would normally consume on hot days (and the day before).
5. Minimize or eliminate your consumption of caffeine, coffee, tea, soda, energy drinks, sugary drinks, and alcohol.



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# 10 BIGGEST MISTAKES FIREFIGHTERS MAKE WITH THEIR FITNESS

## WHAT ARE THE NEXT STEPS FOR YOU AND OTHER FIREFIGHTERS?

Avoid the mistakes other firefighters have made with their fitness. Here are 5 steps to take your fitness journey to the next level:

1. Get a NFPA 1582-compliant physical.
2. Start implementing the strategies we shared in this report.
3. Listen to our Firefighter Functional Fitness podcasts on the Firefighter Toolbox Podcast: [FirefighterToolbox.com/F3Podcasts](http://FirefighterToolbox.com/F3Podcasts)
4. Follow us on Twitter ([@FirefighterFFit](https://twitter.com/FirefighterFFit)) and Instagram ([@FirefighterFunctionalFitness](https://www.instagram.com/FirefighterFunctionalFitness)).
5. Go and get our book: *Firefighter Functional Fitness: The Essential Guide to Optimal Firefighter Performance and Longevity*

Getting *Firefighter Functional Fitness* will require you to invest in yourself and your department. Let us share what to expect from the book:

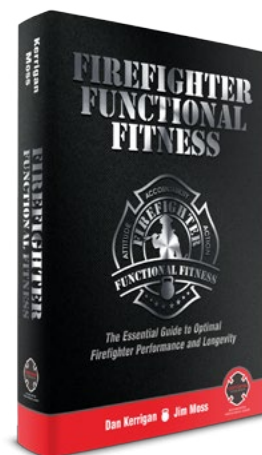
- A simple, yet comprehensive approach to firefighter fitness that uses practical movements, positions, and exercises to best prepare you for optimal fireground performance
- In addition to physical exercise, it also incorporates recovery, hydration, nutrition, and a lifestyle of moderation for a holistic approach to fitness
- More than 100 functional exercises and movements you can incorporate into your fitness routines
- Self-assessment tools to identify your current level of fitness
- Easy-to-use workout programming guidelines for any fitness level
- **Bonus Chapters:** *The importance of annual medical evaluations, the fire service cardiovascular epidemic, implementing a physical agility assessment program at your fire department, frequently asked questions, and more.*

*Firefighter Functional Fitness* shares how to be more fit for the job, help keep your weight under control, reduce your risk of heart disease, diabetes, cancer, high blood pressure and high cholesterol, reduce stress, help you feel better, and add years to your life (while adding life to your years).

*Firefighter Functional Fitness* provides *all* firefighters with the knowledge, mind-set, and tools to:

- Maximize fire ground performance
- Reduce risk of injury and experiencing a line-of-duty death
- Live long, healthy careers and retirements

With more than 300 pages, it reveals the The Big 8 concept and more than 100 photos and descriptions of functional exercises, movements, and stretches that are specifically designed to enhance firefighter performance. The Workout Programming chapter gives firefighters numerous options for putting The Big 8 into action, taking into account all levels of fitness. Additionally, each chapter provides practical action steps for both immediate improvement and long-term success.



Get the book here:

[FirefighterFunctionalFitness.com](http://FirefighterFunctionalFitness.com)

This report is authored by *Firefighter Functional Fitness* authors Dan Kerrigan and Jim Moss.



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## ABOUT THE AUTHORS



Dan Kerrigan and Jim Moss are the authors of *Firefighter Functional Fitness: The Essential Guide to Optimal Firefighter Performance and Longevity*.

Dan and Jim are passionate advocates of firefighter fitness on the local and national levels. They have shared *Firefighter Functional Fitness* at FDIC International, Firehouse World, Firehouse Expo, the National Volunteer Fire Council, the International Society of Fire Service Instructors, and online through FirefighterToolbox.com, FireEngineering.com, TheFirstTwenty.org, and the International Association of Fire Chiefs.



Get more information  
and testimonials here:

[FirefighterFunctionalFitness.com](http://FirefighterFunctionalFitness.com)

## WHAT OTHERS ARE SAYING ABOUT *FIREFIGHTER FUNCTIONAL FITNESS*:

“Everyone who wants to be firefighter should be given *Firefighter Functional Fitness* when they receive their turnout gear! It covers everything a firefighter needs to know about functional fitness and how to put that knowledge into action.”

—David Wurtzel, Founder/Executive Director, The First Twenty — TheFirstTwenty.org

“*Firefighter Functional Fitness* will have a major impact on firefighter health, well-being, fitness and injury prevention. I highly recommend this book to all of our brothers and sisters in the fire service, from our newest recruits, to our chief officers.”

—Collin Blasingame — Captain, Garland Fire Department, Texas — BlastMask.com

“Dan and Jim have done an incredible job of not only showing the importance of firefighter health, but also providing a template that will empower firefighters to take steps in the right direction. *Firefighter Functional Fitness* is a great place to learn the tools you need to prevent injury, increase performance, and build a healthier heart!”

—Jordan Ponder — Captain, Milwaukee Fire Department, Wisconsin — FD-PT.com

“Firefighters must be jacks of all trades---especially with their fitness, yet it’s very difficult to find a program that gives you all the knowledge and tools needed to accomplish this—until now. With *Firefighter Functional Fitness*, Dan and Jim have nailed it! This book is a must-read for all firefighters.”

—Robert Owens — Lieutenant,  
Henrico County Division of Fire, Virginia —  
AverageJakeFirefighter.com



## A Physician's Guide to Administering a NFPA 1582-Compliant Medical Evaluation

Dear Doctor \_\_\_\_\_,

As a firefighter, my job requires me to push my body far beyond normal physical limitations. As such, it is important to me that my medical evaluation cover all of the components recommended by National Fire Protection Association (NFPA) 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments.

I am providing this fact sheet for your convenience so that you can ensure that my evaluation includes the following components:

- Health risk appraisal questionnaire
- Comprehensive work and medical history
- Chest X-ray (PA and Lateral)
- Pulmonary function profile
- Audiometric examination
- Visual acuity with peripheral
- Electrocardiogram (ECG) while resting
- Blood pressure, height, weight, BMI
- Colorectal stool screen
- Complete lab analysis (blood and urine)
- Hepatitis profile
- Physical examination that includes cancer screening
- Heavy metal exposure screening (as needed)

In addition to the above components, I am requesting a submaximal treadmill test with 12-Lead ECG, and a flexibility evaluation.

For complete NFPA information, visit: <http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=1582>

### Laboratory Testing:

- **Blood**
  - CBC with Differential, RBC indices and morphology, and platelet count
  - Electrolytes (Na, K, Cl, and HCO<sub>3</sub> or CO<sub>2</sub>)
  - Renal Function (BUN creatinine)
  - Glucose
  - Liver function tests (ALT, AST, direct and indirect bilirubin, alkaline phosphatase)
  - Total cholesterol (HDL, LDL, percent LDL, and triglycerides)
- **Urine**
  - Dipstick test for glucose, ketones, leukocyte esterase, protein, blood, and bilirubin
- **Audiology**
  - Assess each ear for the following frequencies: 500 Hz, 1000 Hz, 2000 Hz, 3000 Hz, 4000 Hz, 6000 Hz, and 8000 Hz.
- **Immunizations and Infectious Disease Screening**
  - Tuberculosis screen: PPD skin test or blood test
  - Hepatitis C virus screen (baseline)
  - Hepatitis B vaccination
  - Tetanus, diphtheria, pertussis (TDAP) vaccine, booster every 10 years
  - Measles, mumps, rubella (MMR) vaccine
  - Polio vaccine, if not currently documented
  - Hepatitis A vaccine
  - Varicella vaccine (offered to nonimmune personnel)



## 10 Biggest Mistakes Firefighters Make With Their Fitness

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