



SPECIAL REPORT

NFPA 1583: WHAT EVERY FIREFIGHTER NEEDS TO KNOW



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One of the things we hear the most from firefighters and fire chiefs when it comes to establishing a fire department fitness program is that they do not know where to start, nor do they know what to include.

Firefighter Functional Fitness: The Essential Guide to Optimal Firefighter Performance and Longevity contains a vast amount of information designed to help you, the individual firefighter, achieve optimal performance and longevity by implementing a comprehensive program that includes The 4 Pillars:

1. Physical Fitness
2. Recovery and Rest
3. Hydration
4. Nutrition and Lifestyle

Furthermore, there are additional fire service resources available that can assist you on your fitness journey and help you implement a fitness program at your fire department. One of the most useful is NFPA 1583.

In this document, we will share what NFPA 1583 is, why it is important, and how firefighters and chief officers can use it on an individual and organizational level.

WHAT IS NFPA 1583?

NFPA 1583: *Standard on Health-Related Fitness Programs for Fire Department Members* is a valuable resource that details specific minimum requirements for the development, implementation, and management of fire department fitness programs.

WHY IS IT IMPORTANT FOR ALL FIREFIGHTERS TO KNOW ABOUT NFPA 1583?

For the firefighter, it serves as a great resource to take functional fitness to the next level. For fire chiefs and department health and fitness coordinators, it is a guide to help understand and implement its administrative components, ultimately assisting in the implementation of a formal firefighter fitness program on the department level.



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THE CORE COMPONENTS OF NFPA 1583

The overall purpose of NFPA 1583 is to set the minimum requirements for fire departments to establish health-related fitness programs for their members. It does so by establishing:

1. Member roles and responsibilities
2. Qualifications for health and fitness coordinators and peer fitness trainers
3. Guidelines for a periodic fitness assessment
4. Fitness training program components
5. Health program promotion and education requirements
6. Requirements for data collection

In addition to these requirements, NFPA 1583 contains an appendix with a sample fitness plan, and a sample self-assessment worksheet. It can be used as a starting point to guide fire departments in establishing their own program.

THE 2 HEALTH & FITNESS TOOLS EVERY FIREFIGHTER MUST USE

TOOL #1 The Pre-Assessment Questionnaire

Functionally fit firefighters know that they must be in adequate physical condition to participate in a fitness program. A questionnaire is a great aid for every firefighter to help evaluate their current health status.

Prior to any member engaging in a fitness assessment, NFPA 1583 requires each department member to complete a preassessment questionnaire to identify any contraindications from participation. The standard requires that the fire department physician, as directed by *NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments*, clear each member for participation and for return to duty after a debilitating injury or illness. Although NFPA 1583 does not specifically include a sample questionnaire, we strongly recommend that you obtain clearance from an occupational physician prior to starting any fitness program.

TOOL #2 The Fitness Assessment

NFPA 1583 states that the following components be included in a firefighter fitness assessment:

1. Aerobic capacity
2. Body composition
3. Muscular strength
4. Muscular endurance
5. Flexibility

Once you are cleared for participation in a fitness program, NFPA 1583 provides the following as an example of a fitness assessment form to assess your baseline fitness level:

PERSONAL AND DEMOGRAPHIC INFORMATION

Date of submission (mm/dd/yy): _____ Age: _____ Gender: Male Female
 Fire department confidential identification code: _____
 Fire-fighter confidential identification code number: _____
 Ethnicity: African American Asian Hispanic Native American Filipino
 Caucasian Other
 Job assignment: Structural fire fighting Administrative officer Field officer
 No. of years in service: _____
 Smoking/Tobacco usage (packs per day): <1 1 2 3 or more None
 Height (in whole inches): _____ Weight (in whole pounds): _____

FITNESS ASSESSMENT

| Mode of Testing | Results |
|---|---------------------------------------|
| <i>Aerobic Capacity</i> | |
| <input type="checkbox"/> 1.5 mile walk/run (field test) | |
| <input type="checkbox"/> Other | Completed in _____ min _____ sec |
| <hr/> | |
| <input type="checkbox"/> Step test | |
| Test duration _____ | |
| Step height _____ | VO ₂ max _____ |
| <input type="checkbox"/> Other | |
| <hr/> | |
| <input type="checkbox"/> Submaximal treadmill test | |
| <input type="checkbox"/> Other | Heart rate _____ Blood pressure _____ |
| <hr/> | |
| <input type="checkbox"/> Submaximal cycle ergometer test | |
| <input type="checkbox"/> Other | Heart rate _____ Blood pressure _____ |
| <hr/> | |
| Pre-exercise heart rate _____ | Post-exercise heart rate _____ |
| <hr/> | |
| Pre-exercise blood pressure _____ | Post-exercise blood pressure _____ |
| <i>Flexibility</i> | |
| <input type="checkbox"/> Trunk flexion (sit and reach test) | |
| <input type="checkbox"/> Other | Most distal point reached _____ |
| <i>Muscular Strength</i> | |
| <input type="checkbox"/> Grip strength test | |
| (one repetition maximum) | Right hand _____ kg |
| <input type="checkbox"/> Other | Left hand _____ kg |

| Mode of Testing | Results |
|--|--|
| Muscular Endurance | |
| <input type="checkbox"/> Push-up test [1 minute (max)] | Maximal number of push-ups performed consecutively without resting _____ |
| <input type="checkbox"/> Other _____ | |
| <input type="checkbox"/> Sit-up test [1 minute (max)] | Maximal number of sit-ups performed within 1 minute _____ |
| <input type="checkbox"/> Other _____ | |
| Body Composition Testing | |
| Skinfold assessment | Site #1 _____ Site #2 _____ Site #3 _____ Percent of body fat _____ |
| Body mass index (BMI) | Member's weight divided by height ² = <input type="checkbox"/> 20–24.9 kg/m ² <input type="checkbox"/> 25–29.9 kg/m ² <input type="checkbox"/> 30–34.9 kg/m ² <input type="checkbox"/> over 35 kg/m ² |
| Waist-to-hip ratio | Waist circumference _____ Hip circumference _____ Waist-to-hip ratio _____ |
| Hydrostatic weighing | Body density _____ |
| Bioimpedance (BIA) | Body density _____ |
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THE 8 COMPONENTS OF A NFPA 1583 FIREFIGHTER EXERCISE AND FITNESS TRAINING PROGRAM

NFPA 1583 es the following components be included in a fire department exercise and fitness program:

1. Educational program that describes the components and benefits
2. Individualized exercise plans based on fitness assessments
3. Warmup and cooldown exercise guidelines
4. Aerobic exercise training
5. Muscular resistance (strength) training
6. Flexibility training
7. Healthy back exercise program
8. Safety and injury prevention program

As an added benefit, NFPA 1583 provides a sample selfassessment worksheet that you can use to track your progress and improvement across a variety of functional exercises and movements:

SELF-ASSESSMENT WORKSHEET

Name: _____

| | Date | | | |
|--|-------------|--|--|--|
| | Start Time | | | |
| | Finish Time | | | |
| Exercise | Heart Rate | | | |
| Treadmill at 15 percent and 5 mph for 1 min. | | | | |
| DB curls with 15 lb, 24 reps (standing —both arms) | | | | |
| Treadmill at 15 percent and 3.5 mph for 1 min. | | | | |
| DB rows with 30 lb, 24 reps (each arm) | | | | |
| Treadmill at 15 percent and 3.5 mph for 1 min. | | | | |
| DB military press with 20 lb, 24 reps (standing —alternating arms) | | | | |
| Treadmill at 15 percent and 3.5 mph for 1 min. | | | | |
| DB carry with 35 lb, 10 reps (pickup/carry 6 ft) | | | | |
| Treadmill at 15 percent and 3.5 mph for 1 min. | | | | |
| Lat pulldown at 80 lb, 24 reps (close grip/palms towards face) | | | | |
| 1 minute of recovery (sitting quietly) | | | | |
| 2 minutes of recovery (sitting quietly) | | | | |
| 3 minutes of recovery (sitting quietly) | | | | |
| 4 minutes of recovery (sitting quietly) | | | | |
| 5 minutes of recovery (sitting quietly) | | | | |



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SPECIAL NOTE: FOR THE FIRE CHIEF

All too often, fire department leaders agree on an intellectual level that the health and fitness of all firefighters are critical riskreduction components, but far fewer actually take action. Often times, fire chiefs are overwhelmed with instituting a fitness program at their fire department.

NFPA 1583 provides specific guidance on how to get this done in a systematic manner. It does so by:

1. Assigning specific responsibilities and qualifications for:
 - a. Health and Fitness Coordinator
 - b. Peer Fitness Trainers
2. Using your fire department physician as a resource to educate members and promote health and fitness.
3. Outlining the specific data that must be collected and recorded, relative to the program and its participants.

Moreover, the appendices in NFPA 1583 offer specific information on:

1. Organizations that can provide training to certify personnel as fitness trainers
2. Information on the IAFF/IAFC WellnessFitness Initiative and its protocols
3. Assessment tools
4. Additional informational references

About the Authors:

Dan Kerrigan & Jim Moss are the co-authors of *Firefighter Functional Fitness*. It is the essential guide to optimal firefighter performance and longevity. It provides *all* firefighters with the knowledge, tools, and mindset to maximize their fire ground performance, reduce their risk of injury and line-of-duty death, and have long, healthy careers and retirements. Go to FirefighterFunctionalFitness.com to learn more.

For More Information About NFPA 1583

Go to: <http://www.nfpa.org/codesandstandards/documentinformationpages?mode=code&code=1583> to access the complete document.

Source: *NFPA 1583: Health-Related Fitness Programs for Fire Department Members, 2015 edition.*



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