



Getting the most from your NFPA 1582 Physical Program

Part II - Test Day

So you've signed a contract and scheduled a company to come perform an NFPA 1582 Health and Wellness Program for your firefighters. Next step is making sure you get the most out of your NFPA 1582 program. This article will discuss some key elements that will help your department have a successful program that benefits the department and your firefighters.

Schedule two phases instead of just one:

Most companies performing testing will try to get everything done in 1 visit; the bloodwork, testing, results, and clearance. This means that the labs are not available during the day of testing, and this is less than ideal for many reasons. Did you know that NFPA 1582 expressly states that all medical results should be available to the medical provider during the firefighter's medical exam and consultation? This means that blood must be drawn in advance so the results are available BEFORE the firefighter meets with the medical provider.

This is accomplished using a two-phase process. During Phase I, bloodwork and urine are collected. About two weeks later, we return and perform the rest of the medical testing. The last part of phase 2 is the physical examination and the one on one counselling with the medical provider. This means that your firefighter gets one on one review and counselling based on all their testing results including their bloodwork. The firefighter walks out of their consultation with a copy of all testing results and personalized recommendations. This is far more effective than receiving a packet in the mail with lab results and a generic recommendation to review the results with the firefighter's own medical provider. Many times, firefighters do not have their own doctor, and will simply set the paperwork aside without looking at it.

History Forms

The NFPA 1582 Standard calls for yearly history forms to be filled out by all participating firefighters. Without these forms, medical providers are missing key pieces of information such as medical problems, previous surgeries and medications. This information is crucial in making medical judgments about your firefighters. As physicians, much of our medical decision making is dependent upon the firefighters' medical history. We recommend that history forms be filled out when the lab draws are done. Why? This allows the medical provider the opportunity to review the blood work and history forms prior to meeting with your firefighters. This way we can begin to prepare our recommendations for that firefighter before we have even met him or her.

For example, a firefighter is seen who smokes, has a family history of heart disease, and their bloodwork shows they have high cholesterol. As we are preparing for our meeting with this firefighter we would gather information for him regarding quitting smoking, and lowering cholesterol. We will also stress the importance of lifestyle changes to reduce his risk of cardiac disease. When we perform his physical we will ask additional questions and pay special attention to elements of the physical exam to detect possible heart disease. In addition, we will make specific recommendations for follow up based on all this information and may recommend specific testing to ensure that he is

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clear of cardiac disease. How could we do this without a good medical history form? We couldn't, and without this key piece of information, your firefighters are not getting the counseling they deserve.

Test Day

Testing day should not be a day of chaos! We encourage an orderly process as outlined by the NFPA 1582 standard. Did you know that The Standard even has an order of how testing should proceed? The process should be smooth and well-ordered with your firefighters moving from station to station with a minimal amount of wait time between stations. Stations should include vitals, body fat testing, plank, push-ups, strength testing, pulmonary function testing, audiometry, resting EKG, treadmill exercise testing and finally the physical exam and counseling with the medical provider.

There are three mistakes you should avoid with testing.

1. **The first is trying to cram too many people through at once or too many people in one day.** There is usually economic pressure from the vendor to do this. It is cheaper for the vendor and the department to try to get more people through the process in the shortest amount of time. While it may sound like a good idea to hire someone who promises to see all 80 of your firefighters in one day, in our experience whatever financial benefits that were derived by this are more than undone by rushing the process and not spending enough time with each firefighter. This is an important process and needs to be done correctly. It is reasonable for your vendor to process about 4 to 5 people per hour, or 25 to 30 people in an 8-hour day. Trying to do more than this is asking for mistakes to be made and having a program that does not live up to the goals of the NFPA 1582 Standard.
2. **The second mistake is simply not following the NFPA 1582 standard.** Many vendors either cut corners and remove important elements of NFPA 1582, or they add additional expensive testing, such as ultrasounds, that is not medically appropriate for screening testing and is not part of NFPA 1582. To make matters worse these ultrasound studies are being evaluated and interpreted by technicians and are never reviewed by radiologists. This is done for cost cutting measures at the expense of your firefighter's health and safety. This practice results in firefighters undergoing further expensive and unnecessary testing while experiencing unnecessary anxiety about false medical conditions. If your department is going to perform ultrasound testing it should be reviewed by a radiologist and then discussed with the firefighter as part of the one on one counselling session between the medical provider and the firefighter.

Some vendors also use bicycles instead of treadmills for the treadmill exercise test. Did you know NFPA 1582 removed the bicycle 14 years ago because it is too inaccurate? Every cardiologist we have ever worked with uses a treadmill in their office as part of their stress and exercise testing. We have never seen one use a bicycle. Because you stand, walk, and run on the treadmill, and go up an incline, it more closely resembles your physiologic response when fighting a fire. How many of you have ever seen a firefighter sit on a bike and pedal while responding to a fire? We haven't seen one either. And lastly, the WFI Protocol calls for a treadmill or a stepmill, but never a bicycle.

3. **The third is not using the right equipment.** For a vendor to perform testing as required by the NFPA standard, they must invest in specific equipment. And as any fire chief will attest to, if equipment has the word NFPA attached to it is usually quite expensive. For example, The Standard calls for the use of a Jackson Strength

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Tester, which is a \$5000 piece of equipment. Instead of spending the money to conform to The Standard, many vendors will just skip strength testing all together. If you are going to invest money in an NFPA 1582 testing program then every effort should be made to follow it as closely as possible.

The Physical Exam

Believe it or not, this is the most important piece of your NFPA 1582 program. In many programs the physical examination is nothing more than another testing station, but it really should be much more than this. For starters, it should always be the final station. Why? By the time the medical provider meets with the firefighter we want to have the medical history, labs, and the results of all testing in front of us. This information directs our physical examination and counseling of the firefighter. This is our chance as medical providers to make a difference for the firefighter and for your department. Armed with all this information we can make well informed medical decisions regarding clearances or medical issues. If we need further medical information, the firefighter is right there in front of us. We don't have to go back later and try to sort things out. When we are finished, the firefighter leaves with specific recommendations tailored to their specific labs and testing results that were gathered during the testing process. In addition, each firefighter is given a copy of all test results to share with his personal physician.

As physicians, it is our job to piece together all test results from Phase I and Phase II, discuss everything with the firefighter, and use our time to enhance his or her health. The best compliment we can get is when a firefighter tells us that we have spent more time, and were more thorough than their own personal physician.

In the next installment, we will discuss clearance issues, departmental statistics and record keeping.

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