MEDICAL ASSESSMENT FAQS – PART 7

CARDIOPULMONARY FITNESS STATION

Q-1: What is tested at the Cardiopulmonary Fitness (Stairmill) Test Station?

A-1: Your aerobic capacity. At the Cardiopulmonary Fitness Test station you will be asked to complete two separate phases (with the potential for an extended phase two) on a stairmill machine, which is often referred to as the “stairmill test.” This will be done to measure your aerobic capacity, which is your body’s ability to take in oxygen and perform work. Firefighting requires at least 12 METs of aerobic capacity.

Q-2: Must I pass an examination before I can take the stairmill test?

A-2: Before you can begin the stairmill test, a nurse will review your completed Candidate Medical Assessment Form and the results from the Vital Signs, EKG, and Pulmonary Function Test stations to check for any medical conditions that may make it unsafe for you to proceed with the stairmill test. Such conditions may include:

- A systolic blood pressure exceeding 140 (mmHg) or a diastolic blood pressure exceeding 90 (mmHg);
- An irregular heartbeat;
- A bone fracture that occurred within the last 12 months;
- The chronic use of prescribed medication including, but not limited to, blood thinners, beta blockers, sedatives, and narcotics;
- A history of heart disease, including a heart stent;
- A history of stroke;
- Morbid obesity;
- Recent surgery; or
- A history of pulmonary disease.

Q-3: What happens if the nurse who reviews my information determines that I should not proceed with the stairmill test?

A-3: If the nurse, in his/her medical opinion, believes that you should not proceed with the stairmill test, you will be verbally notified that you may not take the stairmill test until a FDNY physician reviews your condition(s) and/or medical test result(s). In that case, a FDNY physician will examine you and review the medical test results and/or conditions, and make a decision about whether you can safely proceed with the stairmill test.
Q-4: If a FDNY physician determines that it would be unsafe for me to take the stairmill test on the day of the medical exam, may I take the stairmill test another time?

A-4: If a FDNY physician determines that it would be unsafe for you to take the stairmill test, you will either be permitted to schedule another stairmill test or be asked to obtain additional testing to make sure that it is safe for you to take the stairmill test. You will be notified of what additional testing is needed in a “Reserved Medical Status” letter.

Q-5: What are the phases I must complete on the stairmill machine?

A-5: The stairmill test has two phases. During each phase, you will walk on the stairmill at the rate of one step per second while wearing a heart monitor. The test is given in the following manner:

- Phase One: You will walk on the stairmill without a weighted vest for three minutes and two seconds (3:02). (There is a heart rate requirement (see the answer to Q-7 below) during Phase One of your first stairmill test.)
- Five Minute Break.
- Phase Two: During Phase Two, you will wear a 50 pound weighted vest and a heart rate monitor while you walk on the stairmill for five minutes and twelve seconds (5:12). If your heart rate exceeds maximum requirements after this five minute and 12 second period (5:12) and you do not exhibit signs of dizziness, distress, or any other condition that could cause harm to you, you will have the option to continue on the stairmill for an additional two minutes and forty eight seconds (2:48), for a total of 8 minutes (8:00).

Q-6: What determines if I pass or fail the stairmill test?

A-6. In addition to failing to complete the stairmill test, if any of the following occurs, the stairmill test will be discontinued and you will not be considered to have passed the test:

- You touch the stairmill with one or both of your hands;
- You fall off the stairmill or stop for any reason; or
- BHS personnel observe signs of dizziness, distress or any condition which could cause harm to you.

Q-7: What are the heart rate limits for the stairmill test?

A-7: Details about the heart rate requirements can be found in Appendix B to the Bureau of Health Services Guidance for Firefighter Candidates Concerning Medical Assessment (BHS Guidance Document), which you can find on the FDNY’s Candidate Resources page.
Q-8: If I fail the stairmill test or it is determined that it would be unsafe for me to take the stairmill test, can I still complete the other 11 stations?

A-8: You will be allowed to complete the remaining stations unless BHS has determined that it is not safe for you to continue with the other parts of the medical exam. The stairmill test (or an alternative that BHS advises is acceptable) must be successfully completed, however, before you can be appointed as a Firefighter.

Q-9: May I take the stairmill test another time?

A-9: If you fail the stairmill test, you will be evaluated by a FDNY physician. Based upon the physician’s assessment you will either be permitted to schedule a retest or be asked to obtain additional testing to make sure that it is safe for you to retake the stairmill test. The additional testing needed would be conveyed in a “Reserved Medical Status” letter.

Q-10: If I am eligible to take the stairmill test a second time, how long will I have to schedule the test?

A-10: You will be scheduled for a second stairmill test to take place between 30 and 45 days of the first stairmill test.

Q-11: Is the second stairmill test the same?

A-11: The second stairmill test is largely the same as the first stairmill test, but there are some differences that are described in Appendix B to the BHS Guidance Document.

Q-12: Can I take the stairmill test a third time?

A-12: You can only take the stairmill a third time if you obtain the results of a methacholine challenge test and an echocardiogram. The FDNY will cover the cost associated with these two tests. If you wish to have the FDNY schedule you for these tests at no cost to you, BHS will schedule you for these tests on the date of the second stairmill test. BHS will evaluate the result of those tests and, if they are satisfactory, you will be allowed to take a third stairmill test.

Q-13: Why do I need to obtain a methacholine challenge test and an echocardiogram to take the third stairmill test?

A-13: If you failed the stairmill test twice, BHS must determine whether there are underlying conditions that may be preventing you from passing. Two potential underlying problems are asthma and structural heart disease. The methacholine challenge test is used to diagnose asthma and the echocardiogram tests for structural heart problems.
Q-14: Can I take a test other than the stairmill to be medically qualified?

A-14: If you fail the stairmill test twice and provide BHS with satisfactory results from a methacholine challenge test and an echocardiogram then you can submit the results of an outside test. To be accepted by BHS, this test must be an exercise stress test to 12 METs.