

MEDICAL EXAMINATION FAQs – PART 5

PULMONARY FUNCTION TEST STATION (SPIROMETRY)

Q-1: What is tested at the Pulmonary Function Test (“PFT”) station? What does this test entail?

A-1: Spirometry measures airflow. By measuring how much air you exhale, and how quickly you exhale, spirometry can evaluate a broad range of lung diseases. There are two measurements that are crucial in the interpretation of spirometry results. The first is called the **forced vital capacity (“FVC”)**. This is a measurement of lung size (in liters) and represents the volume of air in the lungs that can be exhaled following a deep inhalation. The second is the **forced expiratory volume-one second (“FEV1”)**. This is a measure of how much air can be exhaled in one second following a deep inhalation.

You will be instructed to inhale fully and exhale as hard as possible, a total of up to eight times. The three best results will be recorded as your results. Your capacity to forcibly exhale air in one second which is measured by the spirometer against certain predicted values that differ based on your height, race/ethnicity, and your sex assigned at birth. See Appendix A of the [Firefighter Candidate Medical Examination Guidance](#), which you can find on the FDNY’s Candidate Resources webpage and the Candidate Portal.

Q-2: What PFT results may require further evaluation?

A-2: Further evaluation will be required if your capacity to forcibly exhale (FVC) and forcibly exhale air in one second (FEV1) is less than 80 percent of the predicted value for your height, gender and race or if the ratio of these two measures (FEV1/FVC) is less than 0.70.

Q-3: Why does my height, race/ethnicity and gender matter for this test?

A-3: Differences in lung capacity based on these factors have been recorded by the Third National Health and Nutrition Examination Survey (1988–1994) (NHANES III), and the FDNY uses these nationally accepted standards.