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**APPLICATION OF SPIROMETRY IN PULMONILOGY AND ITS DIAGNOSTIC VALUE**

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Pulmonology is a medical specialty that deals with diseases involving the respiratory tract. Spirometry – the determination of [lung volumes](http://en.m.wikipedia.org/wiki/Lung_volumes) in time by breathing into a dedicated machine; response to bronchodilatators and [diffusion](http://en.m.wikipedia.org/wiki/Diffusion) of [carbon monoxide](http://en.m.wikipedia.org/wiki/Carbon_monoxide). Spirometry (meaning the measuring of breath) is the most common of the [pulmonary function tests](http://en.m.wikipedia.org/wiki/Pulmonary_function_test) (PFTs), measuring [lung](http://en.m.wikipedia.org/wiki/Lung) function, specifically the amount (volume) and/or speed (flow) of air that can be inhaled and exhaled.

Spirometry is a common office test used to assess how well your lungs work by measuring how much air you inhale, how much you exhale and how quickly you exhale. Spirometry is used to diagnose asthma, chronic obstructive pulmonary disease (COPD) and other conditions that affect breathing. Spirometry may also be used periodically to check whether a treatment for a chronic lung condition is helping you breathe better.

Why it's done? The doctor may suggest a spirometry test if he or she suspects your signs or symptoms may be caused by a chronic lung condition such as: asthma, COPD, chronic bronchitis, emphysema, pulmonary fibrosis. If you've already been diagnosed with a chronic lung disorder, spirometry may be used periodically to check how well your medications are working and whether breathing problems are under control.

Spirometry is generally a safe test. You may feel short of breath or dizzy for a moment after you perform the test. Because the test requires some exertion, it isn't performed if you've had a recent heart attack or some other heart conditions. Rarely, the test triggers severe breathing problems.

Key spirometry measurements include the following:

• Forced vital capacity (FVC). This is the largest amount of air that you can forcefully exhale after breathing in as deeply as you can. A lower than normal FVC reading indicates restricted breathing.

• Forced expiratory volume (FEV-1). This is how much air you can force from your lungs in one second. This reading helps your doctor assess the severity of your breathing problems. Lower FEV-1 readings indicate more significant obstruction.