



## Lung Function in COPD

### Table of Contents

- Overview
- Related Information
- Credits

### Overview

---

Lung function means how well your lungs work. When you have COPD, your lungs can't move as much air in and out as they should. And the more serious your COPD is, the less air your lungs are able to move.

Spirometry tests are used to measure lung function. They measure how much air you breathe out when you take long, deep breaths and push the air out of your lungs. For people with COPD, the test measures how well the lungs do two important jobs:

- How much air you can push out in 1 second. This is called forced expiratory volume in 1 second, or FEV1.
- How much air you can push out after you take a deep breath, with no time limit. This is called forced vital capacity, or FVC.

### What do the results of a spirometry test for COPD mean?

Your FEV1 and FVC numbers are lower than normal when you have COPD, and they get lower as the disease gets worse. These numbers are usually stated in the form of a percentage.

Picture a glass of water. If the glass is full to the brim, it is 100% full. If it is only half full, it is 50% full. And 33% means it is only one-third full, and so on. Likewise, if your FEV1 is 50%, your lungs are able to handle only half as much air as they should. If your FEV1 is 33%, your lungs are able to handle even less—only a third as much. The lower your FEV1 percentage, the less air your lungs are able to handle.

The results of a spirometry test are used to diagnose COPD and check the severity of the disease. To help make the best treatment plan for you, your doctor will look at your FEV1, your symptoms, your chance of having COPD flare-ups, and any other health problems you may have.

Here are the FEV1 numbers for the grades of COPD.

## COPD: Grade and FEV1

Grade	FEV1
Mild COPD (grade 1)	80% or higher
Moderate COPD (grade 2)	50% to 79%
Severe COPD (grade 3)	30% to 49%
Very severe COPD (grade 4)	Less than 30%

## Related Information

---

- COPD (Chronic Obstructive Pulmonary Disease)

## Credits

---

Current as of: July 31, 2024

Author: Ignite Healthwise, LLC Staff (<https://www.healthwise.org/specialpages/legal/abouthw/en>)

Clinical Review Board (<https://www.healthwise.org/specialpages/legal/abouthw/en>)

All Healthwise education is reviewed by a team that includes physicians, nurses, advanced practitioners, registered dietitians, and other healthcare professionals.

---

Note: The "printer friendly" document will not contain all the information available in the online document. Some information (e.g. cross-references to other topics, definitions or medical illustrations) is only available in the online version.

---



This information does not replace the advice of a doctor. Ignite Healthwise, LLC, disclaims any warranty or liability for your use of this information.

© 2024 Ignite Healthwise, LLC.