

with or without significant impairment. COPD has been defined in several different ways, and these different definitions can have a large impact on the population estimates of the burden of disease.²⁻⁵

DEFINITIONS

Several different definitions exist for COPD. The American Thoracic Society (ATS) has defined COPD as “a disease state characterized by the presence of airflow limitation due to chronic bronchitis or emphysema: the airflow obstruction is generally progressive, may be accompanied by airway hyperreactivity, and may be partially reversible.”² The European Respiratory Society (ERS) defined COPD as “reduced maximum expiratory flow and slow forced emptying of the lungs, which is slowly progressive and mostly irreversible to present medical treatment.”³ The Global Initiative for Chronic Obstructive Lung Disease (GOLD) classified COPD as “a disease state characterized by airflow limitation that is not fully reversible. The airflow limitation is usually both progressive and associated with an abnormal inflammatory response of the lungs to noxious particles or gases”⁵ (Fig 1). For these three different definitions, however, the precise classification of airflow limitation, reversibility, and severity of disease varies. In addition, the definitions and diagnoses of chronic bronchitis, emphysema, and asthma also can vary.

Airflow Limitation

Airflow limitation is the slowing of a patient's expiratory airflow, as measured by spirometry, with a persistently low FEV_1 and a low FEV_1/FVC ratio despite treatment. The 1995 ATS definition of COPD did not list a specific level of the FEV_1/FVC ratio for airflow limitation,² although a previous ATS document listed an FEV_1/FVC ratio of less than the fifth percentile as evidence of airflow limitation.² The 1995 ERS definition for airflow limitation is an FEV_1 /slow vital capacity ratio of < 88% of the predicted value for men and a ratio of < 89% of the predicted value for women.³ The GOLD definition for airflow limitation is an FEV_1/FVC ratio of < 70%.⁵

Airflow Limitation Reversibility

Airflow limitation reversibility can be acute, in response to an inhaled bronchodilator, or in response to oral or inhaled corticosteroids.^{5,7} The ATS definition of COPD did not specifically define reversibility, although a previous ATS statement classified reversibility as an FEV₁ increase of 200 mL and 12% above baseline FEV₁ for treatment with inhaled bronchodilators.⁶ The ERS definition of COPD classifies reversibility as a > 10% improvement in predicted FEV₁ after a patient receives a bronchodilator.³ The GOLD definition of COPD classifies reversibility as an FEV₁ increase of 200 mL and a 12% improvement from baseline FEV₁ for treatment with either inhaled corticosteroids or bronchodilators.⁵

The term “partial reversibility” is frequently mentioned but has not been fully defined. In the context of the definitions, this term probably defines patients who in fact have “reversibility” in response to therapy with either

different

still

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Abbreviations: ATS = American Thoracic Society; DALY = disability-adjusted life-years; ERS = European Respiratory Society; GOLD = Global Obstructive Lung Disease Initiative; NHANES = National Health and Nutrition Examination Survey; NHIS = National Health Interview Survey

COPD is characterized by airflow obstruction with related symptoms such as chronic cough, exertion dyspnea, expectoration, and wheeze.¹ These symptoms may occur in conjunction with airway hyperresponsiveness and may be partially reversible. Even though COPD is a nonspecific term referring to a set of conditions that develops progressively as a result of a number of different disease processes, it most commonly refers to patients with chronic bronchitis and emphysema and to a subset of patients with asthma. These conditions can be present

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