

**The Test.**

From an individual's height, age, gender and weight, our device calculates a predicted value.

It then measures the forced expiratory volume in the first second of expiration as a percentage of the predicted values (FEV1% predicted).

If the individual is a smoker then an equivalent lung age is calculated—generally considerably older for a heavy smoker than their chronological age.

### Our New COPD Screening Device, Designed For Quick And Simplified Screening of COPD And Early Detection of COPD In Adult Smokers.

**Testing is suitable for...**

- Spirometry screening programs
- Identification of early signs of COPD in smokers over 40 or anyone with symptoms
- Used as a motivational tool to help susceptible smokers to quit

***A screening program to help reduce the burden of chronic lung disease.***

- A **quick** check of lung function to detect the early signs of Chronic Obstructive Pulmonary Disease (COPD) and help with managing treatment.
- **Very Accurate:** +/-3% (meets and exceeds all known spirometry performance standards)
- **Safe:** Testing with a disposable cardboard mouthpiece that incorporates a one-way valve to prevent drawing air back from the monitor and reduces potential risks of cross-contamination. The mouthpieces are used only once and discarded.

**Chronic Obstructive Pulmonary Disease (COPD).** COPD is the fourth leading cause of death worldwide according to the World Health Organization and it is estimated that it will become the third leading cause of mortality by 2010. COPD is often undiagnosed in its early stages, especially in smokers, who are most at risk and as a result not receiving treatment.

**Background.** COPD is an umbrella term used to describe the airflow obstruction associated mainly with emphysema and chronic bronchitis. Emphysema causes irreversible lung damage by weakening and breaking the air sacs within the lungs. Chronic bronchitis is an inflammatory disease that begins in the smaller airways within the lungs and gradually advances to larger airways. It increases mucus in the airways and increases bacterial infections that block the bronchial tubes. Both conditions decrease the lungs' ability to take in oxygen and remove carbon dioxide.

Long-term smoking is the most common cause of COPD. Other risk factors are heredity, second-hand smoke, air pollution, and a history of frequent childhood respiratory infections.

**For Smokers.** Our instrument also calculates a participant's lung age, making it an excellent motivational tool, alerting smokers to the physical damage caused by their habit – the lungs of a regular smoker will function at the reduced level of a much older person. The associated "Lung Age" displayed for smokers may help the participant realize the physical damage caused by smoking, encouraging attendance for smoking cessation advice and full spirometry assessment, leading to early diagnosis and appropriate management of COPD.

"Lung Age" can be used to demonstrate to smokers the damage caused to their lungs by smoking in a way they can understand. Smokers are the greatest risk for developing COPD and decline in lung function in susceptible smokers has been shown to be twice of non-smokers.