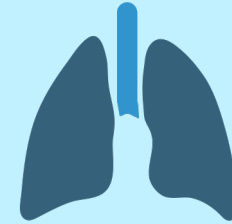


Spirometry



Spirometry measurements can be used by health care professionals to detect, follow and manage patients with respiratory disorders. These studies measure the rate of volume change of the lungs during forced breathing maneuvers.

Total Lung capacity (TLC) - Lung volume at maximal inflation.

Vital capacity (VC) - Largest volume measured upon complete exhalation following maximum inspiration.

Inspiratory capacity (IC) - Maximal volume of inhaled air from the level of resting expiration.

Functional residual capacity (FRC) - Lung volume remaining at end-expiration.

Tidal volume (V_T) - Volume of inhaled and exhaled air during a normal respiratory cycle.

Inspiratory reserve volume (IRV) - Maximal volume of air able to be inhaled after end-inspiration.

Expiratory reserve volume (ERV) - The maximum volume able to be exhaled after end-expiration.

Residual volume (RV) - The volume of air remaining in the lungs immediately following maximal exhalation.

Forced vital capacity (FVC) - The total volume of air exhaled during maximal forced expiration.

Forced expiratory volume in 1 second (FEV_1) - Volume of exhaled air in the first second of forced expiration following maximal inhalation.

Percentage of FVC expired in 1 second - FEV_1 / FVC ratio - Used in distinguishing between restrictive vs obstructive airway disease.

Forced expiratory flow between 25-75% of FVC ($FEF_{25-75\%}$) - The average flow between 25-75% of FVC. Also known as Mid Maximal Expiratory Flow (MMEF). This is the best test to assess small airway disease

