

Spirometry and pulmonary function testing

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ABSTRACT

Basic respiratory assessment involves some form of lung function assessment. Spirometry is the most common and it measures lung function, specifically the amount (volume) and/or speed (flow) of air that can be inhaled and exhaled. It is helpful in assessing breathing patterns that identify conditions such as asthma, pulmonary fibrosis, cystic fibrosis, and COPD. Every clinic treating patients with respiratory disease should provide this service. Before performing spirometry, basic information needs to be collected from the patient. Any recent illnesses, smoking history, recent surgery, list of medications, weight, height, age. Contraindications to performing spirometry should be noted as well, which includes pneumothorax, aortic aneurysm, recent thoracic or abdominal surgery, recent myocardial infarction among others. Certain clear instructions regarding position and technique will help to get the best results. Giving strong encouragement during the test frequently helps too. Acceptability, repeatability, reproducibility along with knowing common errors will help in validation the test. The shape of the flow loop will provide additional information for diagnostic purposes.