



FAST FACTS

A message for health care providers



COPD and Spirometry Testing

Key Message

- Signs and symptoms of Asthma and COPD may be similar; therefore, Spirometry testing provides a differential diagnosis between Asthma and COPD.

Pathophysiology of COPD

- The pathophysiology of COPD is related to chronic airway irritation, mucus production, and pulmonary scarring. Irritation from environmental pollutants or a genetic predisposition leads to airway inflammation, which causes increased mucus production and decreased mucociliary function.

Risk Factors

- Cigarette smoking is the primary risk factor for COPD, however
- Other risk factors are responsible for an increasing number of COPD cases; These risk factors include:
 - Advancing age
 - Secondhand smoke exposure
 - Chronic exposure to environmental or occupational pollutants
 - Alpha1-antitrypsin deficiency
 - Childhood history of recurrent respiratory infections
 - Family history of COPD

Diagnostic Testing: Spirometry

- Although spirometry is a simple, billable procedure that can be performed in the office, it is underused by primary care physicians.
- Spirometry is the key test for diagnosing COPD; Suspected COPD should be confirmed using spirometry.
- Everyone at risk for COPD who has a cough, sputum production, or shortness of breath should be tested using spirometry.
- The NHLBI recommends spirometry for all smokers 45 years or older, particularly those who present with shortness of breath, coughing, wheezing, or persistent sputum production.
- The American Thoracic Society (ATS) has published guidelines for classifying COPD severity based on spirometry findings at <http://www.thoracic.org/clinical/copd-guidelines/for-health-professionals/definition-diagnosis-and-staging/spirometric-classification.php>

Resources

- NHLBI COPD Info <http://www.nhlbi.nih.gov/health/prof/lung/index.htm#copd>
- AAFP COPD Info http://sitesearch.aafp.org/?q=copd&t1-search=true&sp_cs=UTF-8
- National Association of Managed Care Physicians (NAMCP) Unveils COPD Resource Center <http://www.emphysemafoundation.org/featured/145-the-national-association-of-managed-care-physicians-namcp-unveils-copd-resource-center.html>

Sources: <http://www.nhlbi.nih.gov/health/public/lung/copd/what-is-copd/getting-tested.htm>; <http://www.aafp.org/afp/2008/0701/p87.html>