

## CHAMPLAIN HEALTH PARTNERS STRENGTHEN LUNG HEALTH SERVICES, BUILD PUBLIC AWARENESS

*Champlain Local Health Integration Network and Champlain Lung Health Network  
Promote Diagnostic Tool, Lung Patient Guide, and New Services*

### **Q. What is asthma?**

Asthma is a chronic lung disease. People with asthma have sensitive airways. Allergens and irritants may trigger swelling, inflammation, the production of extra mucus, and airway spasms. Asthma symptoms include:

- Shortness of breath
- Chest tightness
- Coughing
- Wheezing
- Waking up at night with any of these symptoms
- Inability to perform daily physical activities (e.g., school, work, exercise).

### **Q. What is COPD?**

Chronic Obstructive Pulmonary Disease (COPD) is a chronic lung disease that includes chronic bronchitis and emphysema. Smoking is the major cause of COPD.

Chronic bronchitis is characterized by chronic cough and excessive mucus production. The airways are inflamed and swollen. The cells lining the airways produce excessive mucus. The swelling and excessive mucus obstruct the airways.

Patients with emphysema have damaged airways and damaged alveoli, the tiny air sacs at the tips of the airways where oxygen and carbon dioxide are exchanged. Some patients have either chronic bronchitis or emphysema, while others have both lung diseases. COPD patients are susceptible to frequent and persistent respiratory infections.

Symptoms include coughing and wheezing on exertion or at night, shortness of breath when doing simple chores, and frequent and persistent respiratory infections.

### **Q. How many residents in the Champlain region have asthma?**

In 2007, 9.6% of Champlain residents aged 12 years and older reported that they had been diagnosed with asthma, compared to 8.1% of Ontario residents overall.<sup>1</sup>

<sup>1</sup> Statistics Canada. Canadian Community Health Survey, 2007. www.statcan.gc.ca.

## How many residents in the Champlain region have COPD?

2.3% of residents in the Champlain region between 30 and 44 years of age reported having COPD, while 9% of residents 75 years of age and older reported having COPD.<sup>2</sup>

### Q. What is spirometry?

Spirometry is a simple breathing test which is used for older children, teens and adults. It measures how much air your lungs can force out in one second divided by the maximum volume of air forced out during the test. If you have reduced lung function due to inflammation or obstruction in your airways, then you won't be able to breathe out as much air as someone who doesn't have lung disease.

A spirometry test can help to diagnose asthma. However, normal spirometry test results do not exclude asthma. Your doctor may need to order other pulmonary function tests to confirm an asthma diagnosis, such as a bronchial challenge or exhaled nitric oxide test.

The Canadian Thoracic Society says that spirometry is required for the diagnosis of COPD and is useful in assessing the severity of airway obstruction.<sup>3</sup>

### Q. Who should be referred to spirometry testing?

Any patient (except young children) suspected of having asthma or COPD should undergo spirometry testing.

As well, the Canadian Lung Association suggests that patients who are 40 years of age and older and who are current or former smokers should undergo spirometry testing if they have any of the following symptoms:

- Coughing regularly
- Coughing up phlegm regularly
- Shortness of breath when doing simple chores
- Wheezing on exertion or at night
- Frequent and persistent colds.<sup>4</sup>

Individuals with these symptoms are at risk of COPD.

<sup>2</sup> Bains N, Dall K, Hohenadel J. Chronic Conditions in the Champlain LHIN: Health System Intelligence Project October 2007. Queens Printer for Ontario; 2007.

<sup>3</sup> DE O'Donnell, S Aaron, J Bourbeau, et al. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease – 2007 update. Can Respir J 2007;14(Suppl B):5B-32B, p. 10B.

<sup>4</sup> DE O'Donnell, S Aaron, J Bourbeau, et al. Canadian Thoracic Society recommendations for the management of chronic obstructive pulmonary disease – 2007 update. Can Resp J 2007; 14 (Suppl B): 5B-32B.

## **Q. Why should health care providers in the Champlain region increase spirometry testing?**

Spirometry is underutilized nationally, provincially and in the Champlain region. Spirometry is essential for the proper diagnosis of asthma and COPD. Physicians do not prescribe high blood pressure medications to patients without checking their blood pressure, nor do they prescribe insulin to diabetics without testing their blood sugar levels. Yet, many physicians prescribe inhalers to patients without testing their lung function and obtaining an accurate diagnosis of lung disease. Many patients use inhalers for years before they are diagnosed with COPD or heart disease. Many COPD patients experience symptoms for six years or more before they are diagnosed.<sup>5</sup>

Poor control of asthma and COPD symptoms leads to repeated emergency room visits and hospital admissions. Asthma exacerbations are a significant cause of emergency department visits at the Children's Hospital of Eastern Ontario. COPD exacerbations are the number one reason for repeated emergency department visits and hospital admissions at the Queensway Carleton Hospital.

## **Q. What are the risks associated with prescribing asthma or COPD medications without spirometry testing?**

Respiratory therapists in the Champlain region say that by the time they see patients for spirometry testing, the patients' asthma or COPD is well advanced, and their lung function test results are poor, especially among COPD patients in their 40's.

Patients risk:

- A misdiagnosis
- Taking the wrong medications
- Taking the wrong dose of medications
- Suffering from the side effects of unnecessary medications
- Repeated emergency room visits
- Repeated hospital admissions
- Lost school or work days
- Lost income
- Permanent damage to their lung function and subsequent disability
- Reduced quality of life
- Premature death.

<sup>5</sup> The Canadian Lung Association. Chronic Obstructive Pulmonary Disease (COPD): A National Report Card, 2005, p. 17.

## **Q. Where is spirometry available in the Champlain region?**

Spirometry is available at:

- Primary Care Asthma Program sites at several Community Health Centres and Family Health Team clinics
- Respiriologists' offices
- Emergency rooms
- Hospital clinics.

## **Q. What is the Champlain Lung Health Network?**

The Champlain Lung Health Network was created in 2006 under the direction of the Champlain Local Health Integration Network (LHIN). This marked the first time that patients, respiratory therapists, physicians, hospitals, community health centres, and health organizations from across the Champlain region came together to improve patient access to lung health services. Lung health services in the Champlain region are poorly funded and disorganized compared to health care services for other chronic diseases. This may be due to the invisibility of lung disease; or to the stigma associated with tobacco addiction; or to the lack of public awareness about the long-term effects associated with exposure to indoor and outdoor air pollutants.

The Champlain Lung Health Network is committed to increasing public awareness about lung disease, and to improving patients' access to lung health services, including diagnostic tests, medications, education programs, treatment plans, smoking cessation programs, respiratory rehabilitation, and community-based and hospital-based services. For more information on this network, visit: [www.champlainlhin.on.ca](http://www.champlainlhin.on.ca).