



ASTHMA 101

FROM

diagnosis & treatment TO control

by **Dr. Andrew McIvor**

ASTHMA IS a chronic or long-term lung disease where inflammation of the airways causes recurrent breathing problems. People with asthma suffer “attacks” or “flare ups” when the bronchioles, or airways, get narrower and breathing becomes difficult. Asthma affects approximately one out of 10 Canadians.

Your doctor: the key to better breathing

Canadian physicians are world leaders in asthma research and are currently working on many new and exciting treatments. Guidelines on how best to manage asthma are regularly reviewed and updated.

As with any chronic illness, it's important to feel comfortable and develop a partnership with your doctor. Don't hesitate to discuss issues that might be related to your asthma: daily activities you find difficult, worries or concerns about side effects from medications, or what to do in an emergency.

Education is the key to asthma control. Studies show that the more informed you are, the better you'll be able to manage your symptoms. An increase in the number of people with asthma has led to a very high demand for asthma specialists, so your best option might be to find a certified asthma educator (CAE). These specially trained health professionals have extensive knowledge on asthma and can be found in many regions of Canada. They can help you with diagnosis, management of your symptoms and follow-up.

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The Resources section on page 17 can help you find an asthma educator near you.

Could I have asthma?

If you have episodes of coughing, wheezing and/or chest tightness (especially if it limits your regular activities), these might be symptoms of asthma and you should discuss them with your family doctor. If a member of your family has asthma, you'll want to be especially attentive to possible asthma symptoms.



Diagnosis of asthma is usually made quite late, when a "flare up" of symptoms occurs or when someone has serious shortness of breath. But there's no need to wait that long. If you have recurring symptoms or answer yes to one of the questions on the asthma test, you should ask your doctor to perform special tests to determine if you have asthma.

Although many people think a chest x-ray is needed for diagnosis, spirometry is actually the gold standard investigation to confirm asthma.

What's spirometry?

Spirometry is a simple test of lung function that easily diagnoses obstructive lung diseases like asthma. Some doctors perform this test in their office, but most refer their patients to a special laboratory

equipped to assess pulmonary function. The test is simple: while sitting upright, you inhale deeply, then place your lips tightly around a mouthpiece and blow out as hard and as long as you can. You'll probably be asked to do this on three separate occasions and the best result will be recorded. You'll then be given two to four puffs of a Ventolin® inhaler, "the blue puffer". After 20 minutes the test is repeated. The difference between your first and second exhalations is noted and your doctor will follow-up with the results.

Treatment

Once a diagnosis of asthma has been established, your family doctor will talk to you about options for treatment. One class of medication, known as beta-agonists (like Ventolin) treat the immediate symptoms of asthma, like coughing or wheezing, but not the underlying cause, which is inflammation of the air passages.

Most people with asthma should be treated with an anti-inflammatory medication, usually a low dose inhaled corticosteroid (ICS). It is available as a puffer or as a dry powder and it's inhaled orally.

The other option for countering inflammation is a leukotriene receptor antagonist, which is taken in pill form once a day. Some people prefer these because they're concerned about potential side effects with inhaled steroids.

Whatever you're taking, it's essential to take it regularly. The self-test (on the left) allows people to assess how well their asthma is controlled.

But someone told me...

There's a lot of concern about side effects of inhaled steroids, especially their effect on growth. However, recent studies showed that height was not affected by inhaled steroids, even in people who started using them as children and continued taking them for 20 years. Keep in mind that if you use these drugs under the guidance of your physician or asthma educator, side effects will be minimal or non-existent. Inhaled corticosteroids provide excellent delivery of low-dose medication directly to the lungs, but you should always rinse out your mouth after using it, to avoid a fungal infection called oral candidiasis (thrush).

HOW'S YOUR ASTHMA?

(for adults only)

Do you experience asthma symptoms (i.e., coughing, wheezing, chest tightness) more than four days a week?

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

Do asthma symptoms wake you up at least once a week?

<input type="checkbox"/>	<input type="checkbox"/>
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Does asthma prevent you from exercising or performing other physical activities?

<input type="checkbox"/>	<input type="checkbox"/>
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Have you ever missed work or school because of asthma?

<input type="checkbox"/>	<input type="checkbox"/>
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Do you take your reliever bronchodilator more than four times a week?

<input type="checkbox"/>	<input type="checkbox"/>
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This quick and easy test will show you how well your asthma is controlled. Discuss the results with your family doctor or asthma educator.

Adapted and used with permission from The Asthma Society of Canada, www.asthma.ca

Combination therapy

A new type of medication, called a combination inhaler has recently been developed. It combines an inhaled corticosteroid and a long acting bronchodilator that helps to keep airways open for up to twelve hours. These medications (like Advair® or Symbicort®) have been shown to be helpful in keeping asthma under control.

Last resort

Oral corticosteroids or steroid pills like prednisone or prednisolone, are usually reserved for life-threatening or severe attacks. They're used as a last resort because they have the potential for serious side effects like weight gain, mood changes, increased appetite, skin bruising, osteoporosis, and avascular necrosis, a rare condition that affects the hip.

What can I do?

The most important thing you can do is educate yourself about asthma. Everyone should be taught how to use his or her inhaler. Booklets on asthma management can be obtained from your family practitioner or from lung and asthma societies (see Resources, p. 17). Although effective medications have been developed to control asthma, your life-style and the environment in which you live are just as important in keeping symptoms at bay. If you smoke, talk to your doctor about ways to stop. Look for triggers in your environment that may worsen or provoke an episode (pets, pollen, house dust mite). Take up a regular exercise program and if you're overweight, talk to your doctor about different options to help you lose weight. Many hospitals and clinics offer asthma education in groups or on an individual basis.

Stay on top of your symptoms

You can learn to monitor your asthma in two different ways. Both a symptom-basis approach and a peak expiratory flow (PEF) approach have been shown to be helpful. A symptom-basis approach is when you take note of changes in your symptoms. For example, if notice an increase in your shortness of breath, are

coughing or wheezing often, are using your rescue (salbutamol) inhaler more than twice a day or are waking up at night with symptoms, then it's probably time to adjust your meds.

If you're unsure whether a symptom is related to asthma, a PEF tool might be right for you. They're simple devices you can purchase at the pharmacy and use at home to assess your lung function. You'll want to read the directions carefully to make sure you're using it correctly. A peak flow meter measures the biggest, fastest huff you can achieve. It's recommended to do this test twice a day, once when you get up in the morning, and once before your evening meal. If

used properly, your peak flow meter will give you important information about your asthma, similar to blood glucose monitoring in diabetes. You'll be able to chart how your symptoms change over time, whether your symptoms are related to certain triggers, and how well your medication is working. With


practice, most people become quite comfortable with the PEF tool and find it very helpful in monitoring the severity of their asthma.

Talk to your doctor

When you visit your doctor or asthma educator, come prepared. Bring in all the medications you're using and be ready to demonstrate your inhaler technique. Your doctor might show you ways to use your inhaler more effectively. Talk about concerns you might have, either about everyday activities or about medications. It's a good idea to write down your questions before going in for your visit, so as not to forget anything important.

Follow it up

Regular follow-up with healthcare providers is now recognized as a key to better control of asthma. Medication doses often need to be adjusted to achieve acceptable control and many patients, although they feel fine, still suffer from regular symptoms that could be easily treated with minor adjustments to their medication.

The future for asthma patients looks good — new medications, devices and modes of therapy are being developed and studied. But too many people still put up with ongoing symptoms when they don't have to. The goal for patients and doctors should be full asthma control without symptoms. 

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Look for triggers
in your environment
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