

# Asthma and Allergy-II

Health

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**F**our additional exposures are associated with worsening the disease: dog allergen, fungi or moulds, rhinoviruses, and a high level of exposure to nitrous oxides.

Evidence suggests an association between asthma exacerbation and exposure to domestic birds, ETS in older children and adults, formaldehyde, fragrances and several respiratory infectious agents.

In addition to the indoor agents studied extensively, there are other possible triggers for asthma that affect some people. These triggers can include strenuous physical exercise; adverse weather conditions like freezing temperatures, high humidity and thunderstorms; and some foods and food additives and drugs. Strong emotional states, either positive or negative, can lead to hyperventilation and an asthma episode. However, with proper management, many of these episodes can be avoided.

Asthma can be difficult to diagnose. Clinicians use a variety of means to try to determine whether episodic symptoms of airflow obstruction are present and whether this obstruction is at least partially reversible. A detailed medical history is a key element of this process.

The physician may ask questions about coughing, especially at night, and whether the patient's breathing problems are worse after physical activity or during a particular season. Other symptoms, such as chest tightness, wheezing, colds that last beyond 10 days and relief after use of medication, should be discussed.

The physician will ask about the patient's family history of

fast-acting bronchodilator to determine the medication's affect on reversing airflow obstruction.

Because everyone's asthma is different, medications to treat it come in many forms: liquids, pills, powders, vapours and injections. Treating asthma involves managing both the chronic inflammation and recurrent episodes of airflow limitation and bronchoconstriction.

Long-term control medicines are taken daily over a long period of time. The most effective of these to reduce inflammation of the airways are corticosteroids, which are generally prescribed in inhaled form or in pills. Another important type of long-term control medicine is long-acting beta2-agonists. Usually inhaled, but also available orally, this medicine relaxes the smooth muscles of the airways for long-term prevention of symptoms, especially at night.

The last type of long-term control medication to treat asthma is leukotriene modifiers. Leukotriene modifiers may be considered as alternative therapy to low doses of inhaled corticosteroids for children with mild persistent asthma, but the position of leukotriene modifiers in therapy has not been fully established. Leukotriene modifiers improve symptoms and pulmonary function and reduce the need for quick-relief medications.

Quick-relief medications are used to help counter the effects of an acute asthma episode. These are generally short-acting beta2-agonist bronchodilators delivered through an inhaler. People with an inhaler need to know how to use it cor-

the same for all. The inhaler is attached at one end and a mouthpiece at the other end. When the inhaler is pressed, the drug is released into the spacer chamber and the person can slowly inhale it in two or three breaths. Spacers also can reduce potential side effects like mouth sores and mouth dryness common to some inhaled medications. A nebuliser is a device which allows people to inhale asthma medication in a mist or wet aerosol. It consists of a cup, a mouthpiece attached to a T-shaped port or a mask, and thin plastic tubing to connect to the compressed air machine.

rectly for the drug to reach the lungs and have a full effect. Inhalers also are called metered-dose inhalers, meaning that medications are measured by the inhaler apparatus. They are usually the press-and-breathe type.

Many people, especially young children, have a hard time coordinating the pressing and the breathing. This means they may not get the full dose of their medication. If an inhalant is not having much effect, it could mean the person is not using it properly or it is blocked or empty. A healthcare provider should evaluate the technique of patients using inhalers at each visit.

If the healthcare provider sees that someone is having difficulty using the inhaler, he or she can prescribe a spacer. Spacers come in a variety of shapes and sizes, but the concept is the same for all. The inhaler is attached at one end and a mouthpiece at the other end. When the inhaler is pressed, the drug is released into the spacer chamber and the person can slowly inhale it in two or three breaths.

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A nebuliser is a device which allows people to inhale asthma medication in a mist or wet aerosol. It consists of a cup, a mouthpiece attached to a T-shaped port or a mask, and thin plastic tubing to connect to the compressed air machine. This equipment may be needed for small children or others who cannot coordinate the use of an inhaler. It is often used in emergency departments to deliver medicine quickly and effectively to a person having severe symptoms.

- Concluded

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