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Patient information: Asthma treatment in children (Beyond the Basics)

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ASTHMA TREATMENT OVERVIEW

The optimal treatment of asthma depends upon a number of factors, including the child's age and the severity and frequency of asthma attacks. For most children, asthma treatment can control symptoms, allowing the child to participate fully in activities and sports.

Successful treatment of asthma involves three components:

- Controlling and avoiding asthma triggers
- Regularly monitoring asthma symptoms and lung function
- Understanding how to use medications to treat asthma

This article discusses the treatment of asthma in children younger than 12 years. Children with asthma who are 12 years and older are treated with medications and doses similar to that of adults.

Separate articles discuss the symptoms and diagnosis of asthma and use of asthma dose inhalers in children. (See "[Patient information: Asthma symptoms and diagnosis in children \(Beyond the Basics\)](#)" and "[Patient information: Asthma inhaler techniques in children \(Beyond the Basics\)](#)" and "[Patient information: Trigger avoidance in asthma \(Beyond the Basics\)](#)".)

A number of topics about asthma in adults are also available. (See "[Patient information: Asthma treatment in adolescents and adults \(Beyond the Basics\)](#)" and "[Patient information: How to use a peak flow meter \(Beyond the Basics\)](#)" and "[Patient information: Asthma inhaler techniques in adults \(Beyond the Basics\)](#)" and "[Patient information: Asthma and pregnancy \(Beyond the Basics\)](#)".)

CONTROLLING ASTHMA TRIGGERS

The factors that set off or worsen asthma symptoms are called triggers. Identifying and avoiding asthma triggers are essential in preventing asthma flare-ups. Trigger avoidance is discussed in detail in a separate article. (See "[Patient information: Trigger avoidance in asthma \(Beyond the Basics\)](#)".)

Common asthma triggers generally fall into several categories:

- Respiratory infections
- Allergens (including dust, pollens, and furred animals)
- Irritants (such as tobacco smoke, aerosol sprays, some cleaning products)

- Exercise

After identifying potential asthma triggers, the parent and healthcare provider should develop a plan to deal with the triggers. If possible, the child should completely avoid or limit exposure to the trigger (eg, eliminate exposure to cigarette smoke). Recommendations may be made about decreasing allergen exposure (eg, removing carpets from bedrooms, not allow pets to sleep in the child's room). Children who have persistent problems despite efforts to avoid triggers may benefit from seeing an asthma specialist.

Exercise is an exception to the general rule about trigger avoidance. Exercise is encouraged for children with asthma. An asthma action plan should include steps to prevent and treat exercise-related symptoms. (See '[Exercise-induced asthma](#)' below.)

MONITORING ASTHMA SYMPTOMS AND LUNG FUNCTION

Successful management of asthma requires the parent and/or child to monitor their asthma regularly. This is primarily done by recording the frequency and severity of asthma symptoms (coughing, shortness of breath, and wheezing).

In addition, a healthcare provider may recommend that the child measure his or her lung function with a test known as a peak flow (peak expiratory flow rate [PEFR]).

Asthma questionnaires — A healthcare provider may recommend keeping a daily asthma diary when symptoms are not well controlled or when starting a new treatment. In the diary, the child's peak flow readings, asthma symptoms (eg, coughing, wheezing), and medications are recorded ([figure 1](#)). A standardized questionnaire such as the Asthma Control Test (ACT) or Asthma Control Questionnaire (ACQ) may be recommended to help track asthma symptoms.

A periodic diary may be recommended for children who have stable symptoms and whose medications have not changed recently. This type of diary can be completed before visiting the healthcare provider and helps the parent/child and healthcare provider to determine if the asthma treatment plan needs to be adjusted ([form 1](#)).

Lung function assessment — Peak expiratory flow rate (PEFR) measures the rate at which a person can exhale. This rate depends upon the degree of airway narrowing. PEFR monitoring can provide data that can be used to make treatment decisions. Children five years of age and older are usually capable of performing peak flow measurements. This is discussed in greater detail elsewhere. (See "[Patient information: How to use a peak flow meter \(Beyond the Basics\)](#)".) Children over the age of six years may also have lung function testing (spirometry) performed during a visit with their healthcare provider.

Review of asthma treatment — Routine follow-up appointments with a healthcare provider are recommended to review asthma symptom control and treatment plans. Children with asthma should see a healthcare provider every one to six months to monitor the child's symptom severity and frequency and response to treatment. The medications used to treat asthma in children vary according to a child's age, the severity of asthma, and the level of asthma symptom control. If control has been adequate for at least three months, the asthma medication dose may be decreased. If control is not adequate, the medication schedule, delivery technique, and trigger avoidance will be reviewed, and the medication dose may be increased.

CATEGORIES OF ASTHMA SYMPTOMS

