

UNDERSTANDING Allergic Diseases



This information is based on recommendations in *The Allergy Report*. The report was developed by a 25-member Task Force, led by the American Academy of Allergy, Asthma and Immunology. The report contains treatment and management guidelines for allergic disease. See www.theallergyreport.org for the report's full text.

About 50 million Americans suffer with allergies. They experience adverse reactions to normally harmless substances, such as dust, pollen, food, or mold. The immune systems of people with allergies overreact to these substances, called triggers. People who are sensitive to triggers have a high amount of a substance called IgE (immunoglobulin E) in their blood. When tiny bits of the triggers (such as pollen granules) meet up with IgE, the body overreacts. The immune system tries to fight off the unwelcome substance. This results in allergic symptoms such as swelling, tearing, congestion, sneezing and other symptoms.

ALLERGIC CONDITIONS

Allergic Rhinitis

Commonly called "hay fever," allergic rhinitis is an irritation of the nose where the inside of the nose becomes inflamed after being exposed to an allergic trigger. It often is associated with asthma, otitis media and sinusitis. Children who have allergic rhinitis may have dark circles under their eyes and they may use the palm of their hand to push the nose up in an attempt to relieve itching (which is known as the "allergic salute.")

Asthma

Asthma is an ongoing disease caused by inflammation of the airways, making it difficult to breathe. The key symptoms of asthma are coughing, shortness of breath, wheezing and chest tightness. Young children may complain that their chests "hurt" or "feel funny," or they may slow down when playing and become easily irritated.

Because both asthma and allergic rhinitis are diseases that affect the airways, controlling rhinitis will help control symptoms in people who also have asthma.

Atopic Dermatitis (Eczema)

Sometimes called the "itch that rashes," atopic dermatitis is a red, inflamed rash most often seen on the arms, legs, ankles or necks of children. Itching that gets worse in the early evening and at night, sometimes to the point of interrupting normal sleep patterns, is a symptom of allergic dermatitis. Atopic dermatitis usually precedes the onset of allergic rhinitis and/or asthma. However, some children with atopic dermatitis do not develop respiratory allergies.

RELATED CONDITIONS

There are several diseases that have an allergic component. If children have one condition, they are more likely to develop one or more of these other conditions as well.

Conjunctivitis

An inflammation of the whites of the eyes is the main sign of allergic conjunctivitis. It is also indicated by redness, tearing, stinging, or pus discharging from the eyes. Many children with allergic rhinitis develop the symptoms of allergic conjunctivitis and are sent home from school, even though allergic conjunctivitis is not contagious. Bacterial and viral forms of conjunctivitis are contagious, and often are preceded by an upper respiratory infection. Itchy eyes are the key distinguishing feature of allergic conjunctivitis. Symptoms that indicate non-allergic conjunctivitis are burning and scratchy eyes.



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Otitis media

An inflammation of the middle ear, this is the most common childhood disease that sends children to the doctor. It can be ongoing, or happen once in a while. Otitis media is often associated with allergic rhinitis, especially in children under 3 years of age. However, otitis media can also be preceded by an upper respiratory viral infection. If not properly treated, over time, it can cause hearing loss and speech and language deficits.

The earliest signs of acute otitis media are ear pain and discomfort. The child may be irritable and pull on the infected ear. Nonspecific signs associated with otitis media are fever, headache, apathy, vomiting, anorexia and diarrhea.

Sinusitis

Coughing and dark yellow or green nasal discharge are the main symptoms of sinusitis in children. With allergic sinusitis, itchy eyes and sneezing may also occur. Sinusitis usually occurs with rhinitis, and more than 50% of individuals who have moderate to severe persistent asthma have chronic sinusitis.

MANAGING ALLERGIES

There are four principles for managing allergic disease:

Environmental control involves avoiding the symptoms that cause allergic reactions. *A separate fact sheet on allergic rhinitis provides information on environmental control.*

Pharmacologic therapy involves using medications to control allergies.

- Non-sedating, oral antihistamines are used to treat allergic rhinitis.
- Eye drops and/or non-sedating, oral antihistamines are used to treat conjunctivitis.
- Decongestants are used orally or as a nasal spray to decrease nasal congestion. They are often used for allergic rhinitis, sinusitis or conjunctivitis.
- Corticosteroids are anti-inflammatory agents used to treat many allergic diseases, including asthma, rhinitis, conjunctivitis and atopic dermatitis. They are taken orally or inhaled for ocular and respiratory allergies and are also available in topical creams or ointments for allergic skin disorders.

Allergen immunotherapy, also called “allergy shots,” can help patients with allergic rhinitis and asthma. The goal is to reduce or stop allergic reactions by improving the way the body responds to an allergic trigger. This is an effective treatment for allergies to pollen, mites, animal dander and stinging insects.

Patient education is a key component to successfully managing allergies. Students and parents should be taught how they can reduce their exposure to allergy triggers and manage their allergies. See www.theallergyreport.org for more information on patient education.

WHEN TO REFER TO AN ALLERGIST/IMMUNOLOGIST

Children should be referred to an allergist/immunologist when:

- Tests are needed to confirm a diagnosis.
- Current treatment is not having an impact.
- The child and/or parents need further education on controlling or managing the symptoms.
- The patient suffers from multiple conditions, such as asthma and allergic rhinitis.
- Allergen immunotherapy is recommended to lessen or eliminate symptoms.