

Evaluating and Treating Ear, Nose, and Throat Allergies



Division of Allergy and Environmental Disease

*Virginia Commonwealth University Health Systems
Department of Otolaryngology / Head and Neck Surgery
804-628-4ENT*

Andrew J. Heller, MD
Evan R. Reiter, MD

VCUHS - Department of Otolaryngology / Head and Neck Surgery

Stony Point Surgery Center
8700 Stony Point Parkway, Suite 220
Richmond, Virginia 23235
804-323-0830

MCV Hospitals / A.D. Williams Building
1201 East Marshall Street, Suite 401
Richmond, Virginia 23298
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What is allergy?

Allergy is a condition, often inherited, in which the immune system of the affected person reacts to something that is inhaled, eaten, or touched that doesn't affect most people. The patient's immune system reacts to this substance as if it were an "enemy invader" (like a virus). This reaction leads to symptoms that often adversely affect the patient's work, play, rest, and overall quality of life.

Allergens cause allergies

Any substance that triggers an allergic reaction is called an allergen. Allergens "invade" the body by being inhaled, swallowed, or injected, or they may be absorbed through the skin. Common allergens include pollen, molds, dust, and animal dander.

How common are allergies?

Allergies are among the nation's most common and costly health problems. They affect as many as one in four people. More than 50 million Americans have allergic rhinitis. The yearly sales of antihistamines, decongestants, nasal cromolyn, and nasal steroids now exceed five billion dollars.

What happens during an allergic reaction?

The immune system reacts to an allergen that has entered the body as if it were an "enemy invader" (like a virus). It produces special antibodies capable of recognizing this same allergen when it enters the body at another time. When the allergen again enters the body, the immune system rapidly recognizes it, causing a series of reactions. These reactions often involve cellular destruction, blood vessel dilation, and production of many inflammatory chemicals including histamine. Histamine produces some of the more common allergy symptoms such as sneezing, scratchy throat, hives, and shortness of breath.

*What are the symptoms of **Ear, Nose, and Throat Allergies**?*

People often think of allergies as only "hayfever," with sneezing, runny nose, nasal stuffiness, and itchy, watery eyes. However, allergies can also cause symptoms such as chronic sinus problems, excess nasal and throat drainage (post-nasal drip), head congestion, frequent "colds," hoarse voice, eczema (skin allergies), recurring ear infections, hearing loss, dizziness, chronic cough, and asthma. Even stomach and intestinal problems, as well as excessive fatigue, can be symptoms of allergy.

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Can an allergy be outgrown?

No, but it is common for people to change the way their allergic symptoms affect them. For example, a baby may develop colic, recurrent ear infections, or have eczema, but as the baby grows older, he or she may develop different allergic symptoms, such as hay fever, fluid behind the eardrum, or asthma.

How do we make the diagnosis?

The initial or presumptive diagnosis of allergy is made through a patient's history and physical examination. To be certain of the diagnosis and prescribe effective treatment, findings may be confirmed by tests that identify the specific offending antigens.

Testing for Allergies

Like all biological systems, the immune system is very complex. Many issues relating to accurate diagnosis and effective treatment of allergies remain unsolved. The immune reactions caused by airborne (inhalant) allergens such as ragweed and grass pollens, molds, and dust are well understood and comparatively easy to diagnose and treat. However, the immune reactions caused by other allergens such as industrial chemicals, pollution, and foods frequently are more complex and difficult to accurately diagnose and treat with standard techniques.

The following discussion of testing techniques is confined only to the better understood and easier-to-diagnose inhalant allergies caused by dust, mold, and pollen allergens. Although a number of methods are in use today to identify specific inhalant allergens, they all fall into one of two basic types:

- **Skin Testing** or
- **Blood Tests**

Both methods attempt to determine if the patient's immune system has manufactured abnormally large amounts of antibody to specific allergens.

Skin Testing by Endpoint Titration

There are several ways to skin test for allergies. No one test is perfect in every case. However, the experience of thousands of physicians, in both ear, nose, and throat, and many other specialties, indicates that of all skin test types, one form gives superior results in the majority of patients. This test procedure is called **Intradermal Dilutional Testing**, often referred to as **IDT**.

There is very little discomfort from the titration technique. A series of small injections, using very fine needles, is made in rows on the patient's arms. Only a small amount of the test substance (called the antigen) is injected. The result is a series of bumps which look like small mosquito bites. If the bumps enlarge significantly in a short period of time, it indicates the patient is likely allergic. If one receives allergy immunotherapy (shots), the proper dosing will be based on these test results.

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In Vitro Tests on Blood Samples (RAST)

Using a tiny amount of blood serum, this test is used to accurately measure increased levels of allergen antibodies. Although the results of In Vitro tests are not available immediately (need to be sent to a lab) as are skin tests, they offer the convenience of requiring only one sample of blood to obtain the results for several different allergens. In Vitro testing is especially advantageous for the testing of children, as their discomfort is minimized. Skin tests are generally preferred over RAST testing due to the more accurate and immediate results.

What is the Current Treatment for Allergies?

Despite the advances in allergy care during the past several decades, there are still only three basic, accepted approaches to allergy care:

- Avoidance of the offending allergens
- Pharmacotherapy (medications used to influence the allergic reaction)
- Immunotherapy (allergy shots or desensitization)

Avoidance

The first, most basic treatment step, once an allergen has been identified, is to eliminate or avoid it if possible. Unfortunately, avoiding some allergens (such as dust, molds, and animals) is often difficult and thus allergen avoidance alone may not be effective

Pharmacotherapy

Medications can frequently control allergy symptoms. These may include antihistamines, decongestants, prescription nasal sprays, and other products. These medications can often control allergy symptoms, but they can also produce side effects in some people. Many patients do very well with a combination of avoidance and pharmacotherapy.

Immunotherapy

When allergen avoidance and medications do not successfully control allergy symptoms, the **Otolaryngic** (Ear, Nose, and Throat) **Allergist** can alter the body's overactive response. This is done by carefully challenging the patient's immune system through regular injections of the actual allergens to which the patient is sensitive. This treatment can be administered after allergy testing has determined what has triggered the allergic response.

Over time, it may be possible to actually alter a person's excessive response to these environmental allergens, both improving symptoms and decreasing the need for medications and allergen avoidance for many years. Thus immunotherapy is unique in the sense that it alters the patient's reactivity to specific allergens.

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