



CAPITAL ALLERGY & RESPIRATORY DISEASE CENTER
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ALLERGY AND ALLERGIC RHINITIS

WHAT IS ALLERGY?

Allergy is defined as a sensitivity to certain plants, foods, or other common substances. This sensitivity causes the body to overreact when exposed to these substances. The substances which cause the body to overreact are called allergens. What distinguishes truly allergic people is their ability to form a type of antibody (immunoglobulin E or IgE) which causes cells to release histamine. Histamine is a normal body chemical which can cause a runny nose, sneezing, wheezing and itching. When the allergic person comes into contact with any substance that he is allergic to, the interaction between the allergen and IgE causes the release of histamine and the symptoms that we know as allergic (runny nose, sneezing, itching and wheezing). There are four (4) allergic diseases. The most common is allergic rhinitis (hay fever) followed by asthma, eczema and food allergy.

WHO GETS ALLERGIES?

It is estimated that 20% of the population has allergic disease. Although anyone can acquire allergies, those with a family history of allergies are more likely to experience allergic reactions. Allergies can first appear at any age. Half of the people with allergies develop them before age 20.

WHAT CAUSES CHRONIC NASAL/SINUS CONGESTION?

I. Allergic Rhinitis

Although allergic reactions occur anywhere in the body, the two basic kinds of allergies are respiratory and skin allergies. Allergic rhinitis (stuffy, watery nose), is a common form of respiratory allergy. This problem is also known as hay fever.

When allergic rhinitis occurs on a seasonal basis, it is usually related to seasonal grass, tree, or weed pollen. Allergic rhinitis that occurs on a more year round basis is usually related to dust, dust mite, pet or mold allergy. The symptoms of allergic rhinitis include sneezing, runny or stuffy nose, itchy or watery eyes and burning or scratchy throat. Control of these symptoms may be helped by:

1. Avoidance of the allergen.
2. Air conditioners or air purifiers (Hepafilter).



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3. Antihistamine medication. (Claritin, Clarinex, Allegra, Zyrtec) (Antihistamines work by blocking the effects of histamine).
 4. Nasal sprays – (anti-inflammatory) Steroid (Nasocort, Nasonex, Flonase, Rhinocort), cromolyn (Nasal crom) or antihistamine (Astelin).
 5. Treatment with allergy injections.
- II. Vasomotor Rhinitis

Another cause of chronically congested or stuffy nose is vasomotor rhinitis. In this condition the lining of the nose overreacts to inhaled irritants such as smoke, aerosols, chemical sprays, or pollution. The blood vessels in the nose enlarge and cause swelling and obstruction. Breathing through the nose becomes difficult. Vasomotor rhinitis may lead to recurrent sinus or ear infections.

Vasomotor rhinitis is distinguished from allergic rhinitis by the absence of positive skin tests. The discomfort from vasomotor rhinitis may be helped by:

1. Avoiding irritants.
2. Environmental controls.
3. Decongestant medications. These give relief by reducing swelling in the nose.
4. Corticosteroid nasal sprays to decrease nasal airway inflammation.

III. Chronic Sinusitis

Sinus infections are a common complication from both allergic and vasomotor rhinitis. The sinus openings are blocked, causing increased pressure and pain. When this happens antibiotic treatment is necessary.

HOW ARE ALLERGIES DIAGNOSED?

A careful and thorough history and physical examination are essential to the proper diagnosis of allergic disease. Symptoms of the allergic illness must be carefully related to exposure to the suspected allergen.

Allergy skin tests provide an accurate means of establishing the causes of an allergic reaction. With the prick test a droplet of each allergen is applied to the back, and the skin is pricked with a disposable device. The reaction is then observed over the next 15 to 20 minutes. A red, itchy swelling is considered a positive reaction. Intradermal tests are performed when prick tests are negative. Intradermal tests are more sensitive than prick tests and are performed by actually injecting allergen under the skin. The reaction is then monitored over the next 15 to 20 minutes.



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As with any testing, false results or unexpected reactions are possible. Laboratory methods are now available to confirm the

presence or absence of IgE antibody to almost any allergen. These special tests may be needed if the results of the skin tests are inconclusive.

POSSIBLE TREATMENTS

There are multiple options for the treatment of allergic problems.

1. Avoidance and removal of substances which cause problems is the best treatment. However, this is not always practical or possible.
2. Antihistamine medications block the effects of histamine and provide effective symptomatic treatment when taken early and regularly. Antihistamines are useful for symptoms of allergic rhinitis (runny nose), urticaria (hives), sneezing, and itchy, watery eyes. They are NOT effective for asthma stimulated by allergy. Drowsiness or hyperactivity can be frequent side effects of many antihistamines. This effect may be lost after a few days use. Antihistamines are divided into subgroups. When an antihistamine of one group does not seem to be working well, a trial of an antihistamine from another subgroup may give better results. Second generation antihistamines are usually preferred due to less sedative effect.
3. Decongestants help relieve runny and stuffy nose, ear congestion and reduce swelling of nasal mucosa. Decongestants do not help allergy symptoms of sneezing, itchy eyes or hives. Both topical and oral decongestants may be used. Topical nasal sprays and drops may produce a rebound increase in symptoms if over used (more than 3 to 4 days in a row). Decongestants may cause restlessness, insomnia and rapid heart rate. Therefore, they should be avoided by patients with noted high blood pressure or cardiac arrhythmias (irregular heart beat).
4. Corticosteroids: Inhaled nasal steroids are useful to help reduce swelling and help stabilize the nasal mucosa. The sprays should be used on a regular basis.
5. Cromolyn: Cromolyn may be useful for blocking allergic reactions and stabilizing the tissue. In most cases, it must be initially used on a very regular basis and then may be tapered per care provider directions.
6. Antihistamine nasal sprays prevent local effects of histamine in the nasal airway. The onset of action is rapid but the long term effects of reducing tissue swelling seen with corticosteroid and cromolyn are not present.



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7. Anticholinergic nasal spray is particularly helpful for patients who have significant watery nasal discharge and nasal airway congestion. When symptoms are caused by viruses, cold air (skiers nose), temperature change, air pollution and eating, anticholinergic sprays are useful.
8. Allergy immunotherapy can provide long lasting relief. A series of weekly injections with the specific allergens gradually stimulates tolerance. If allergy injections are recommended an additional information sheet will be provided.

FINAL WORD

Since true allergy is a life long and variable condition, successful treatment depends upon mutual cooperation. No cure exists for allergies, but great strides have been made in controlling and improving allergic symptoms. We encourage you to ask questions that you might have concerning your symptoms or treatment program.