



ALLERGIC RHINITIS

Allergic rhinitis is a term describing the symptoms produced by inflammation and irritation of the mucus membranes of the nose, sinuses, throat, eyes, and ears. This condition is caused by the interaction of allergens (allergy causing substances) with allergy cells lining the membranes of the respiratory tract. Allergic rhinitis is a very common condition, with recent data suggesting that 20-30% of the U.S. population is symptomatic.

Symptoms of allergic rhinitis include:

Sneezing, often occurring in bouts	Mouth breathing
Clear, watery nasal discharge	Scratchy throat
Nasal stuffiness	Voice changes
Nasal itching	Cough
Itching, watering and redness of the eyes	Alteration of sense of smell/taste
Deep itching within the ear canals	Itchy palate
Dark circles under eyes, “allergic shiners”	Sinus headache
Fatigue	Facial pain and pressure

The tendency to develop allergies is both genetically and environmentally determined. When a susceptible person inhales an allergen, the body’s immune system reacts abnormally with the allergen. Normally, the body encounters and “remembers” foreign substances such as bacteria and viruses and gets rid of them. Allergic reactions occur when the immune system mistakenly learns to “remember” innocent foreign substances and sees them as harmful. The immune system produces allergic antibodies (immunoglobulin E) that attach themselves to mast cells that line the nasal passages and upper respiratory tract. On a later occasion when the allergen is inhaled again, the antibodies detect something that they recognize as an “enemy” and the mast cells release powerful chemicals such as histamine. This causes the blood vessels to swell and begin leaking fluid into the surrounding tissues causing allergy symptoms.

The mast cells also can release other inflammatory substances that cause inflammatory cells such as eosinophils to migrate out of the blood vessels into the lining of the nose. When eosinophils arrive in the already inflamed tissues, they can create additional symptoms hours after the initial exposure. This chronic inflammation is responsible for a “priming” effect in which the same daily amount of allergen exposure causes progressive worsening of the symptoms.

Common airborne allergens include:

Tree, grass and ragweed pollen	Dander and saliva of animals with fur or feathers
Mold	Debris from dust mites and cockroaches

Allergic rhinitis is diagnosed by taking a detailed history looking for allergen exposures and typical symptoms. The history includes discussion of the home and work environment: type, frequency and severity of symptoms; when symptoms occur (seasonally, year-round, or year-round with seasonal flares); family history and information regarding pets.

Skin testing may be recommended. Antibodies circulate in the blood stream, but localize in the tissues of the nose and skin making it possible to show the presence of these antibodies by skin testing. Occasionally, a special IgE allergy blood test is ordered.

Once allergic rhinitis is diagnosed, treatment options include avoidance of allergens and taking medications for symptom control. Allergen immunotherapy (allergy shots) may be recommended in instances where allergen exposure is unavoidable, medications are not sufficiently helpful, and/or side effects are experienced from medications. Allergy shots have been shown to be very effective for a variety of allergens including grass, trees, ragweed, dust mite, cat, and certain molds.

There are many approaches to treating allergies. Each person’s treatment must be individualized based on the severity of symptoms as well as the degree of allergic sensitivity.