

## ALLERGIC and NON-ALLERGIC RHINITIS

Allergies, including allergic rhinitis, affect an estimated 80 million people in the United States, can interfere with day-to-day activities or lessen quality of life.

### ***What is rhinitis?***

Rhinitis is a term describing nasal inflammation. Symptoms of rhinitis include runny nose, nasal or eye itching, sneezing and stuffy nose due to blockage or congestion. Mucus flows and when mucus production is excessive, it can flow from the front as a runny nose or become noticeable from the back as postnasal drip. Nasal mucus, normally a thin, clear liquid, can become thick or colored perhaps due to dryness, infection or pollution.

### ***What is sinusitis?***

Sinusitis is inflammation or infection of the sinus cavities which open into the nasal passages. Sinusitis is not the same as rhinitis, although the two may be associated and their symptoms may be similar.

### ***What is allergic rhinitis?***

Known to most people as rose fever (Spring), hay fever (Fall), allergic rhinitis is a very common medical problem affecting more than 20% of the population, both adults and children.

Symptoms of seasonal allergic rhinitis occur in spring, summer and/or early fall and are usually caused by allergic sensitivity to pollens from trees, grasses or weeds, or to airborne mold spores.

Other people experience symptoms year-round, a condition called perennial allergic rhinitis, generally caused by sensitivity to house dust mite, animal dander from year round exposure.

### ***No hay, no fever – so why “Hay Fever?”***

“Hay fever” is a century-old term which has come to describe the symptoms of allergic rhinitis, especially when it occurs in the late summer. However, the symptoms are not caused by hay (ragweed is one of the main culprits) and are not accompanied by fever. So the term “allergic rhinitis” is more accurate. Similarly, springtime symptoms are sometimes called “rose fever” but it’s just coincidental that roses are in full-bloom during the grass pollinating season. Roses and other sweet-smelling, showy flowers rely on bees, not the wind, for pollination so not much of their pollen gets into the air to cause allergies.

### ***Is there any escape?***

Some allergens are tough to escape. Ragweed, which affects 75% of allergic rhinitis sufferers, blankets most of the United States. Less ragweed is found in a band along the West Coast, the southern-most tip of Florida and northern Maine, but it is still present. Even parts of Alaska and Hawaii have a little ragweed. Allergist-immunologists seldom recommend moving to another locale as a cure for allergies.

### ***Irritants?***

Irritants include cigarette smoke, strong odors and fumes including perfume, hair spray, cosmetics, laundry detergents, cleaning solutions, swimming pool chlorine, car exhaust fumes and other air pollution. Other irritants are spices used in cooking, alcoholic beverages (particularly beer and wine), aspirin and certain blood pressure medications. Some people are very sensitive to abrupt changes in weather or temperature. Others start sneezing when entering a cold air conditioned room. These agents are not allergens.

Rhinitis can also be a feature of endocrine disease, like hypothyroidism, or can occur during pregnancy. Rhinitis can be made worse or even improved during pregnancy. Alcoholic beverages can cause the blood vessels in the nose to enlarge temporarily and produce significant nasal congestion.

### **How is rhinitis treated?**

**Avoidance** - A single ragweed plant may release one million pollen grains in just one day. The pollen from ragweed, grasses and trees is so small and buoyant that the wind may carry it many miles from its source. Mold spores, which grow outdoors in fields and on dead leaves, also are everywhere and may outnumber pollen grains in the air even when the pollen season is at its worst.

While it is difficult to escape pollen and molds, here are some ways to lessen exposure:

- Keep windows closed and use air conditioning in the summer, if possible. A HEPA (high energy particulate air) filter or an electronic precipitator may help clean pollen and mold from the indoor air. Automobile air conditioners help too.
- Don't hang clothes outdoors to dry. Pollen may cling to towels and sheets.
- The outdoor air is most heavily saturated with pollen and mold between 5 and 10 a.m. so early morning is a good time to limit outdoor activities.
- Wear a dust mask when mowing the lawn, raking the leaves or gardening and take appropriate medication beforehand.

**Medication** – When avoidance measures don't control symptoms, medication may be the answer. Antihistamines, nasal steroids and nasal antihistamines are the most commonly used medications for allergic rhinitis. Nasal corticosteroid sprays reduce the inflammation occurring from the allergic trigger. Medications help to alleviate nasal congestion, runny nose, sneezing and itching.

**Immunotherapy** – Allergen immunotherapy known as "allergy shots" may be recommended for persons who wish to decrease their lifetime need for medications. Immunotherapy can be very effective in controlling allergic symptoms. Allergy injections are usually given at variable intervals over a period of three to five years. As resistance develops, symptoms should improve, but the improvement from immunotherapy will take several months to begin.

## **Non-Allergic, Vasomotor Rhinitis/VMR**

In certain situations, skin tests are entirely negative to allergens and the diagnosis is one of nonallergic or vasomotor rhinitis. Typically in this situation symptoms are year-round without a significant seasonal component and not particularly worse with other known allergens such as cats, dogs, dust mites, mold, etc. They may well be worsened during the change of seasons related to barometric pressure or changes in weather and may also be worsened by irritants such as pollution, cigarette smoke, hair spray, fresh newsprint, volatile substances, perfume and changes in temperature. In addition, symptoms of nasal obstruction can be also worsened with certain foods or irritants in the workplace. Other factors that can worsen vasomotor, nonallergic rhinitis include thyroid disease, pregnancy and certain medication.

For nonallergic patients who may have many of the same symptoms but negative skin tests, allergy shots are not recommended and avoidance of pollen or dust is typically of no benefit. They must rely on long-term medications for symptom control.

The onset of nonallergic rhinitis is classically in adulthood, although it can certainly occur in children. The nose lining is pale, swollen and often associated with polyps and sinus disease. Difficulty with taste and smell can be a problem. Itching is typically absent. The mucus from the nose is most often clear.

Note: Some patients experience both allergic and nonallergic rhinitis called mixed rhinitis. In these cases, reducing the allergic inflammation can improve the nonallergic hypersensitivity to irritants.

Typical medications for patients with nonallergic, vasomotor rhinitis include:

1. Nasal corticosteroid and or nasal antihistamine sprays
2. Nasal ipratropium spray
3. Decongestants
4. Oral antihistamines.
5. Short course of oral steroids are sometimes needed in severe cases
6. Pollen, dust and mold avoidance measures are not helpful
7. Allergy shots are not recommended