



Allergic Rhinitis

What is allergic rhinitis?

Allergic rhinitis means allergies in the nose. Hay fever is allergies that occur during a certain season of the year.

What are the symptoms?

- nasal congestion
- sneezing
- tearing
- watery "runny nose"
- itchy eyes, nose, or throat
- puffy eyes or "allergic shiners"
- post nasal drip

These symptoms may occur during a certain season or year-long. They can occur at any age. These symptoms may not always be caused by allergies. Symptoms can be caused as a side effect of drugs, chemical fumes, smoke, acute stress, being pregnant and overuse of nasal decongestant sprays.

How does allergic rhinitis occur?

This condition occurs when allergens - allergy-causing substances - come into contact with the nose, and usually also the ears, sinuses, and throat. Molds, dust, pollens and animal dander are the most common allergens. Some indoor allergens are present year round, for example pet dander or dust mites. Others are present only during certain seasons -- for example, ragweed in the fall.

When the allergens come in contact with the lining of the nose and sinuses, they trigger the cells to release the chemical histamine, which causes the allergy symptoms described above.

How is allergic rhinitis diagnosed?

The diagnosis of allergic rhinitis is most often made based on your medical history. Allergy problems also run in families. Some individuals with allergic rhinitis also have asthma and/or eczema. But it may take some work to figure out what you are allergic to.

Allergy tests are most often done if allergy shots are being considered. Your health care provider will probably suggest that you try treating your symptoms with medication first. If medications do not control your symptoms, allergy testing may be needed.

How do we treat allergic rhinitis?

Avoidance Therapy

We have all heard that "an ounce of prevention is worth a pound of cure", and first line treatment of nasal allergies is to avoid exposure to allergens that cause your symptoms. Be aware that allergens may be in your carpet and clothing for as long as six (6) months.

Dust mites are the cause of dust allergies. These mites thrive in moist areas and feed off tiny bits of human skin.

Allergies to **animal dander** are a concern for pet owners and those who work with animals. If animals cannot be taken away, they should be kept out of the bed, bedroom, and, common living areas.

Pollen is tough to avoid but pollen masks may help patients while mowing the grass and gardening. Good filters on the furnace and air conditioner can keep pollen out of the house. Change filters on furnaces and air conditioners often.

There is a large amount of mold outdoors from spring until the first hard frost. Molds are common in compost bins, leaf piles, and flower and vegetable gardens.

Indoor molds are found year-round, most often in damp, warm places. These include old shoes, books, luggage, old newspapers, and carpets (those that have been wet before have even more mold). Other indoor areas that have mold are refrigerator drip pans, shower curtains, and bathroom surfaces. Houseplants and dried flowers are a major source of molds and should be kept out of bedrooms and major living areas.

It is also important to decrease irritants to the nose. A **saline spray** should be used to clean and moisten the nasal passages. Avoid tobacco smoke and fumes that can bother the nose. Proper levels of moisture should be kept in your home, mainly in winter. Nasal dryness bothers the nose but indoor moisture levels over 50% allows molds and dust mites to grow.

Medications

Steroid nasal sprays are the most effective medications to reduce and prevent nasal allergy symptoms. Steroid nasal sprays are used frequently with a low chance of side effects: Sometimes they may cause nasal dryness or nosebleeds, but this can generally be avoided by correct spray technique and by using saline sprays. Because steroid sprays take several days to work, they must be used daily as directed. Relief from symptoms cannot be expected for five to ten days, even with correct use. These sprays should be used one to two weeks before a seasonal allergy period. For example, use the spray one to two weeks before the pollen count begins to rise in the spring, or one to two weeks before the ragweed season starts in the fall. For patients with only seasonal allergy symptoms, these sprays can be stopped when the allergy season is over. Patients with year round allergy symptoms (perennial allergic rhinitis) will also benefit from steroid nasal sprays. In all cases, correct use of the sprays is essential to ensure the maximal benefit.

Decongestants cause "vasoconstriction" or shrinkage of swollen tissues in the nasal cavity and widen passages for breathing. Decongestant **nasal sprays** are NOT recommended for allergic rhinitis since they can cause an increase in congestion if used for longer than three days at a time. Oral decongestants (pills) are preferred; however, patients with high blood pressure, those taking tricyclic antidepressants and men with prostate enlargement should avoid oral decongestants.

Antihistamines block the effect of histamine on cells and can prevent the classic allergic reaction. Antihistamines are most effective when taken before allergen exposure. They relieve the "wet" symptoms such as sneezing, itching, and runny nose and eyes but are less effective on congestion, for which a decongestant may be added. Older antihistamines can cause significant drowsiness but newer antihistamines often have less side effects.

Antihistamine eye drops reduce the symptoms of itchy and watery eyes (allergic conjunctivitis) in patients that do not get relief from oral antihistamines alone.

Antihistamine nose sprays block the nasal effects of histamine to relieve nasal drainage and may be useful for patients that cannot take oral antihistamines.

Montelukast (Singulair) works by blocking other chemicals (leukotrienes) that cause inflammation and symptoms of allergic rhinitis. It is especially useful for patients who also have asthma or those who cannot use nasal steroid sprays.

Cromolyn sodium works by stabilizing cellular membranes and preventing the release of histamine. Because cromolyn sodium is expensive and needs to be used four times per day, it is not widely used in the treatment of allergic

rhinitis. When used, it is best used before exposure to prevent symptoms. It is not that helpful in patients who are having significant allergy symptoms before they use it.

Immunotherapy

Immunotherapy, or "allergy shots," is the only measure that offers a "cure" for allergies. Shots would be a good fit for patients whose symptoms are hard to control with other medications, those who have a hard time avoiding certain allergens, and those with year-long symptoms or severe symptoms. Patients must be able to follow the program plan to receive allergy shots.

Other Information for Patients-Avoidance Measures for:

Pollen	
DO:	AVOID:
Use air conditioning Close windows and doors Wear loose, light clothing outdoors; shower, change, and wash clothes in hot water after each use Vacation away during peak pollen season	Using fans Flowers indoors, direct contact with plants (e.g., weeding) Going outdoors on hot, dry days

Outdoor Molds
AVOID:
Compost piles, fallen leaves, cut grass (always if clippings are not bagged), barns, wooded areas Sleeping/camping out, especially on wet ground Greenhouses, antique shops, saunas, sleeping bags, summer cottages, some hotel rooms (especially if not air-conditioned) Outdoor activities at sunset (when mold spores drop onto the ground)

Indoor Fungi	
DO:	AVOID:
Keep humidity at 25-45% Clean surface with mold inhibitors/chlorine bleach: Impregnon, "X"-14, Mildew-Stop Let window/car air conditioner run at full blast 3-5 minutes with window open when first turned on Vent clothes dryers, stoves, and bathrooms to outdoors Ventilate closets (use incandescent light bulbs) Empty and clean garbage cans frequently	Leaks, old wallpaper Basements Old books, poorly ventilated- and poor air-conditioned libraries Live Christmas trees <i>(Data from Pierece, W., Ed., Foundation for Allergy Care and Treatment (FACT). Facts from FACT, Vol 11, Silver Spring, MD, American Academy of Otolaryngic Allergy, 1993: 1-2.)</i>

Dust Mites	
DO:	AVOID:
Eliminate mite reservoirs: Plastic encase pillows and mattresses Wash bedding weekly (140° F or 60° C) Remove carpets, feather/down bedding and pillows, stuffed animals Reduce upholstered furniture to a minimum Keep humidity 25-45% Use air conditioner and dehumidifier Use air filtration measures: Portable HEPA filters Vacuum cleaning Exposure to heat or cold	Too-tight houses (use outdoor ventilation in spring and fall)

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