

## Treatment for Allergy Symptoms

Doctors use three general approaches to helping people with allergies: advise them on ways to avoid the allergen as much as possible, prescribe medication to relieve symptoms, and give a series of allergy shots. Although there is no cure for allergies, one of these strategies or a combination of them can provide varying degrees of relief from allergy symptoms.

### Avoidance

Complete avoidance of allergenic pollen or mold means moving to a place where the offending substance does not grow and where it is not present in the air. But even this extreme solution may offer only temporary relief since a person who is sensitive to a specific pollen or mold may subsequently develop allergies to new allergens after repeated exposure. For example, people allergic to ragweed may leave their ragweed-ridden communities and relocate to areas where ragweed does not grow, only to develop allergies to other weeds or even to grasses or trees in their new surroundings. Because relocating is not a reliable solution, allergy specialists do not encourage this approach.

There are other ways to evade the offending pollen: remaining indoors in the morning, for example, when the outdoor pollen levels are highest. Sunny, windy days can be especially troublesome. If individuals with pollen allergy must work outdoors, they can wear face masks designed to filter pollen out of the air and keep it from reaching their nasal passages. As another approach, some people take their vacations at the height of the expected pollinating period and choose a location where such exposure would be minimal. The seashore, for example, may be an effective retreat for many with pollen allergies.

### Mold Allergens

Mold allergens can be difficult to avoid, but some steps can be taken to at least reduce exposure to them. First, the allergy sufferer should avoid those hot spots mentioned earlier where molds tend to be concentrated. The lawn should be mowed and leaves should be raked up, but someone other than the allergic person should do these chores. If such work cannot be delegated, wearing a tightly fitting dust mask can greatly reduce exposure and resulting symptoms. Travel in the country, especially on dry, windy days or while crops are being harvested, should be avoided as should walks through tall vegetation. A summer cabin closed up all winter is probably full of molds and should be aired out and cleaned before a mold-sensitive person stays there.

Around the home, a dehumidifier will help dry out the basement, but the water extracted from the air must be removed frequently to prevent mold growth in the machine.

### Dust Mite Allergens

Those with dust mite allergy should pay careful attention to dust-proofing their bedrooms. The worst things to have in the bedroom are wall-to-wall carpets, venetian blinds, down-filled blankets, feather pillows, heating vents with forced hot air, dogs, cats, and closets full of clothing. Shades are preferred over venetian blinds because they do not trap dust. Curtains can be used if they are washed periodically in hot water to kill the dust mites. Most important, bedding should be encased in a zippered, plastic, airtight, and dust-proof cover.

Although shag carpets are the worst type for the dust mite-sensitive person, all carpets trap dust and make dust control impossible. In addition, vacuuming can contribute to the amount of dust, unless the vacuum is equipped with a special high-efficiency particulate air (HEPA) filter. Wall-to-wall carpets should be replaced with washable throw rugs over hardwood, tile, or linoleum floors. Rugs on concrete floors encourage dust mite growth and should be avoided.

Reducing the amount of dust mites in a home may require new cleaning techniques as well as some changes in

furnishings to eliminate dust collectors. Water is often the secret to effective dust removal. Washable items should be washed often using water hotter than 130 (degrees) Fahrenheit. Lower temperatures will not kill dust mites. If the water temperature must be set at a lower value, items can be washed at a commercial establishment that uses high wash temperatures. Dusting with a damp cloth or oiled mop should be done frequently.

### Pet Allergies

The best way for a person allergic to pets, especially cats, to avoid allergic reactions is to find another home for the animal. There are, however, some suggestions that help lower the levels of cat allergens in the air: bathe the cat weekly and brush it more frequently (ideally, this should be done by someone other than the allergic person), remove carpets and soft furnishings, and use a vacuum cleaner with a high-efficiency filter and a room air cleaner (see section below). Wearing a face mask while house and cat cleaning and keeping the cat out of the bedroom are other methods that allow many people to live more happily with their pets.

Irritants such as chemicals can worsen airborne allergy symptoms and should be avoided as much as possible. For example, during periods of high pollen levels, people with pollen allergy should try to avoid unnecessary exposure to irritants such as insect sprays, tobacco smoke, air pollution, and fresh tar or paint.

### Air Conditioners and Filters

When possible, an allergic person should use air conditioners inside the home or in a car to help prevent pollen and mold allergens from entering. Various types of air-filtering devices made with fiberglass or electrically charged plates may help reduce allergens produced in the home. These can be added to the heating and cooling systems. In addition, portable devices that can be used in individual rooms are especially helpful in reducing animal allergens.

An allergy specialist can suggest which kind of filter is best for the home of a particular patient. Before buying a filtering device, the patient should rent one and use it in a closed room (the bedroom, for instance) for a month or two to see whether allergy symptoms diminish. The airflow should be sufficient to exchange the air in the room five or six times per hour; therefore, the size and efficiency of the filtering device should be determined in part by the size of the room.

Persons with allergies should be wary of exaggerated claims for appliances that cannot really clean the air. Very small air cleaners cannot remove dust and pollen--and no air purifier can prevent viral or bacterial diseases such as influenza, pneumonia, or tuberculosis. Buyers of electrostatic precipitators should compare the machine's ozone output with Federal standards. Ozone can irritate the nose and airways of persons with allergies, especially those with asthma, and can increase the allergy symptoms. Other kinds of air filters such as HEPA filters do not release ozone into the air. HEPA filters, however, require adequate air flow to force air through them.

### Allergy Medications

For people who find they cannot adequately avoid airborne allergens, the symptoms often can be controlled with medications. Effective medications that can be prescribed by a physician include antihistamines and topical nasal steroids--either of which can be used alone or in combination. Many effective antihistamines and decongestants also are available without a prescription.

Antihistamines. As the name indicates, an antihistamine counters the effects of histamine, which is released by the mast cells in the body's tissues and contributes to allergy symptoms. For many years, antihistamines have proven useful in relieving sneezing and itching in the nose, throat, and eyes, and in reducing nasal swelling and drainage.

Many people who take antihistamines experience some distressing side effects: drowsiness and loss of alertness and

coordination. In children, such reactions can be misinterpreted as behavior problems. During the last few years, however, antihistamines that cause fewer of these side effects have become available by prescription. These non-sedating antihistamines are as effective as other antihistamines in preventing histamine-induced symptoms, but do so without causing sleepiness. Some of these non-sedating antihistamines, however, can have serious side effects, particularly if they are taken with certain other drugs. A patient should always let the doctor know what other medications he/she is taking.

**Topical nasal steroids.** This medication should not be confused with anabolic steroids, which are sometimes used by athletes to enlarge muscle mass and can have serious side effects. Topical nasal steroids are anti-inflammatory drugs that stop the allergic reaction. In addition to other beneficial actions, they reduce the number of mast cells in the nose and reduce mucus secretion and nasal swelling. The combination of antihistamines and nasal steroids is a very effective way to treat allergic rhinitis, especially in people with moderate or severe allergic rhinitis. Although topical nasal steroids can have side effects, they are safe when used at recommended doses. Some of the newer agents are even safer than older ones.

**Cromolyn sodium.** Cromolyn sodium for allergic rhinitis is a nasal spray that in some people helps to prevent allergic reactions from starting. When administered as a nasal spray, it can safely inhibit the release of chemicals like histamine from the mast cell. It has few side effects when used as directed, and significantly helps some patients with allergies.

**Decongestants.** Sometimes re-establishing drainage of the nasal passages will help to relieve symptoms such as congestion, swelling, excess secretions, and discomfort in the sinus areas that can be caused by nasal allergies. (These sinus areas are hollow air spaces located within the bones of the skull surrounding the nose.) The doctor may recommend using oral or nasal decongestants to reduce congestion along with an antihistamine to control allergic symptoms. Over-the-counter and prescription decongestant nose drops and sprays, however, should not be used for more than a few days. When used for longer periods, these drugs can lead to even more congestion and swelling of the nasal passages.

### Immunotherapy

Immunotherapy, or a series of allergy shots, is the only available treatment that has a chance of reducing the allergy symptoms over a longer period of time. Patients receive subcutaneous (under the skin) injections of increasing concentrations of the allergen(s) to which they are sensitive. These injections reduce the amount of IgE antibodies in the blood and cause the body to make a protective antibody called IgG. Many patients with allergic rhinitis will have a significant reduction in their hay fever symptoms and in their need for medication within 12 months of starting immunotherapy. Patients who benefit from immunotherapy may continue it for three years and then consider stopping. Although many patients are able to stop the injections with good, long-term results, some do get worse after immunotherapy is stopped. As better allergens for immunotherapy are produced, this technique will become an even more effective treatment.

National Institute of Allergy and Infectious Diseases