What You Should Know About Pollen Allergy

by Christiane Tourtet

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Every spring, summer, and fall, trees, grasses, amd weeds release tiny pollen grains, which hitch rides on currents of air and are supposed to fertilize parts of other plants. But many times they do not reach their target. Instead, pollen enters the noses and throats of people, and thus triggers pollen allergy, a sort of seasonal allergic rhinitis, which many people know as hay fever. Many things can cause allergy, such as foods, animals, insects, dust, medicines, which can be avoided to a great extent but pollen is one of the most common cause of allergy, there is really no easy way for avoiding, airborne pollen, even while staying indoors with the window closed when the pollen count is high.

Plain looking plants, such as trees, weeds, grasses, that do not have showy flowers, usually are the most common cause of allergic reactions. These plants make light, small and dry pollen grains that are transported by wind. Scientists have been able to collect ragweed pollen 2 miles high in the air and 400 miles out of sea, due to the fact that air born pollen can drift for many miles. It does not really do much good to get rid of offending plants in a given area. The majority of allergenic pollen comes from plants that produce it in enormous quantities. For instance, a single ragweed plant can produce a million grains of pollen a day.

The main factor that determines whether the pollen is likely to cause hay fever is the type of allergens in the pollen. For instance, even though pine tree pollen, which is produced in large amounts by a common tree, would seem to be a good candidate for causing allergy, it causes relatively little allergy due to the type of allergens in pine tree pollen, which appear to make it less allergenic. Although there are more than 1,000 species of grass in North America, only a few produce highly allergenic pollen. Ragweed is a major culprit, but there are other sources, such as sagebrush, Russian thistle (tumbleweed), lamb´s quarters, redroot pigweed, and English plantain.

Some trees that produce pollen are: mountain cedar, pecan, box elder, elm, ash, and oak. Some grasses are: sweet vernal grass, Bermuda grass, orchard grass, redtop grass, Timothy grass, Johnson grass, Kentucky bluegrass. Pollen allergy is seasonal in nature and people have symptoms only when the grains of pollen they are allergic to are in the air. Every year, each plant has a pollinating period which is more or less the same. Depending on the relative length of day and night, and thus on geographical location, a plant will start to pollinate. Weather conditions during pollination can affect the production and

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distribution of pollen in a specific year. For instance, the farther north you go, the later will be the start of the pollinating period and consequently, the later of the start of the allergy season.

Many people are familiar with the pollen count from local weather reports, which measures how much pollen is in the air and represents the concentration of all the pollen or of a particular type, such as ragweed, in the air at a specific time in a certain area. Over 24 hours, grains of pollen are collected per square meter. Pollen counts have a tendency to be the highest in the early morning, on days that are dry, warm, and breezy, and lowest during periods that are wet and chilly. Even though pollen count is an approximate changing measure, it is useful for general guidance as to when it may be wise to avoid contact with pollen and stay indoors. Avoiding pollen, by moving to a place where the offending substance does not grow and is not in the air may offer only temporary relief because people sensitive to a specific pollen may develop allergies to new allergens after being exposed to them repeatedly. Allergy specialists usually do not encourage this approach, as relocating is not a solution that is considered reliable. There are other ways to reduce exposures to offending pollen, such as remaining indoors with all windows closed in the morning when the pollen outdoor is at its highest.

Windy and sunny days can be really troublesome. If you have to be outdoors, wearing a face mask designed to filter pollen out of the air and keep it from reaching the nasal passage would help. Planning a vacation at the height of the expected pollinating period, such as vacationing at seashore or on a cruise, may be an effective way to avoid pollen allergies.

Many people having allergy symptoms, such as the runny nose of allergic rhinitis. may think, at first, that they have a cold. But if the "cold" symptoms persist it is best to be tested for allergies. Allergists use skin tests to find out whether a person has IgE (immunoglobulin E) antibodies in the skin that react to a specific allergen. The weakened extract from an allergen is applied to a puncture made on the back or arm or is injected under the skin of the person. If the reaction is positive, a small, reddened and raised area called a wheal (hive) with a surrounding flush called a flare will show up at the site of the test. The size of the wheal is an important diagnostic clue for the doctor. However, a positive reaction does not necessarily prove that a particular allergen is the cause of symptoms. The reaction is an indication that there is the presence of an IgE antibody to a specific allergen, and that respiratory symptoms do not necessarily occur as a result of it. Skin testing is the least costly way to identify allergies.

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If it is not possible to adequately avoid airborne allergens, such as pollen, symptoms can often be controlled by medicines. You can buy medicines without a prescription that can give you relief of your allergy symptoms. However, if they cause unwanted side effects, such as sleepiness, or do not give you relief, then your health care provider may prescribe antihistamines, which for many years have proven useful in relieving sneezing, itching of the eyes and nose, and helping to reduce swelling and drainage of the nasal passages. However, many people taking antihistamines have rather distressing effects, such as loss of coordination, alertness, and drowsiness. Adults may mistakenly interpret such reactions in children as behavior problems. Antihistamines that cause less side-effects are usually available over-the -counter or by prescription. They are as effective as other antihistamines to prevent histamine-induced symptoms, and are non-sedative. And most of them do not cause sleepiness.

Your health care provider may prescribe topical nasal steroids, which should not be confused with anabolic steroids, which can have serious side effects and are used sometimes by athletes to enlarge muscle mass. The chemicals present in nasal steroids are quite different from those in anabolic steroids. Topical nasal steroids are medicines that are anti-inflammatory and stop allergic reactions. They can have side effects, but are usually considered safe when used at recommended doses. If you have moderate or severe allergic rhinitis, the combination of nasal steroids and of antihistamines is a very effective way to treat it. Cromolyn Sodium, when used as a nasal spray, may help prevent allergic rhinitis. It usually has few side effects when used as directed, and helps significantly to manage allergies.

Your doctor may recommend using nasal or oral decongestants along with antihistamine, to reduce congestion and to control allergic symptoms. However, you should not use over-the-counter or prescriptions decongestant nose sprays and nose drops for more than a few days, as these medicines can lead to even more swelling and congestion of the nasal passages if used for longer periods. It is important to know that due to recent concerns about the bad effects of decongestants drops and sprays, some have been removed from store shelves.

Immunotherapy, or a series of allergy shots, is an available treatment that has a real chance for reducing your allergy symptoms over a long period of time. These injections done under the skin, of increasing concentrations of the allergen(s) you are sensitive to, reduce the level of IgE antibodies in the blood and make the body to produce a protective antibody called IgG.

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Approximately 85% of people with allergic rhinitis will see a significant drop in their hay fever symptoms and of the need for medicines within 12 months starting immunotherapy. The persons who benefit from allergy shots may continue for 3 years and may then consider stopping. Many people are able to stop the injections with satisfactory results that can last for years, however other people do get worse after the shots are stopped.

Although there are several factors that provoke allergic responses, scientists are fully aware that heredity plays a major role in determining who will develop allergies, and therefore are trying to identify and describe the genes that make a person susceptible to allergic diseases. They are also increasingly becoming aware of the role of environmental factors in allergies; and they are evaluating ways to control exposures to environmental allergens and pollutants in order to prevent allergic disease These studies are very promising to improve the control and treatment of allergic diseases and give the hope that, some day, allergic diseases will be preventable.

Resource

U.S. Department of Health and Human Services, National Institutes of Health, National Institute of Allergy and Infectious Diseases.

Editors Note

Not all conventional allergy treatments may be suited for individuals with co-occurring multiple chemical sensitivity. Please see your health care provider for evaluation and treatment. This article is not to be considered medical advice.