

By **MELISSA BIGNER**

# WHEN ALLERGIES Attack

*Your guide to surviving the Lowcountry's sneezy season*



**A** *hhhh, the Lowcountry:*  
our gardens are abloom with Eden-caliber flora; old homes  
boast charming sags and regal bearing; handsome oaks sport  
ample canopies.... It's too bad that our love affairs with

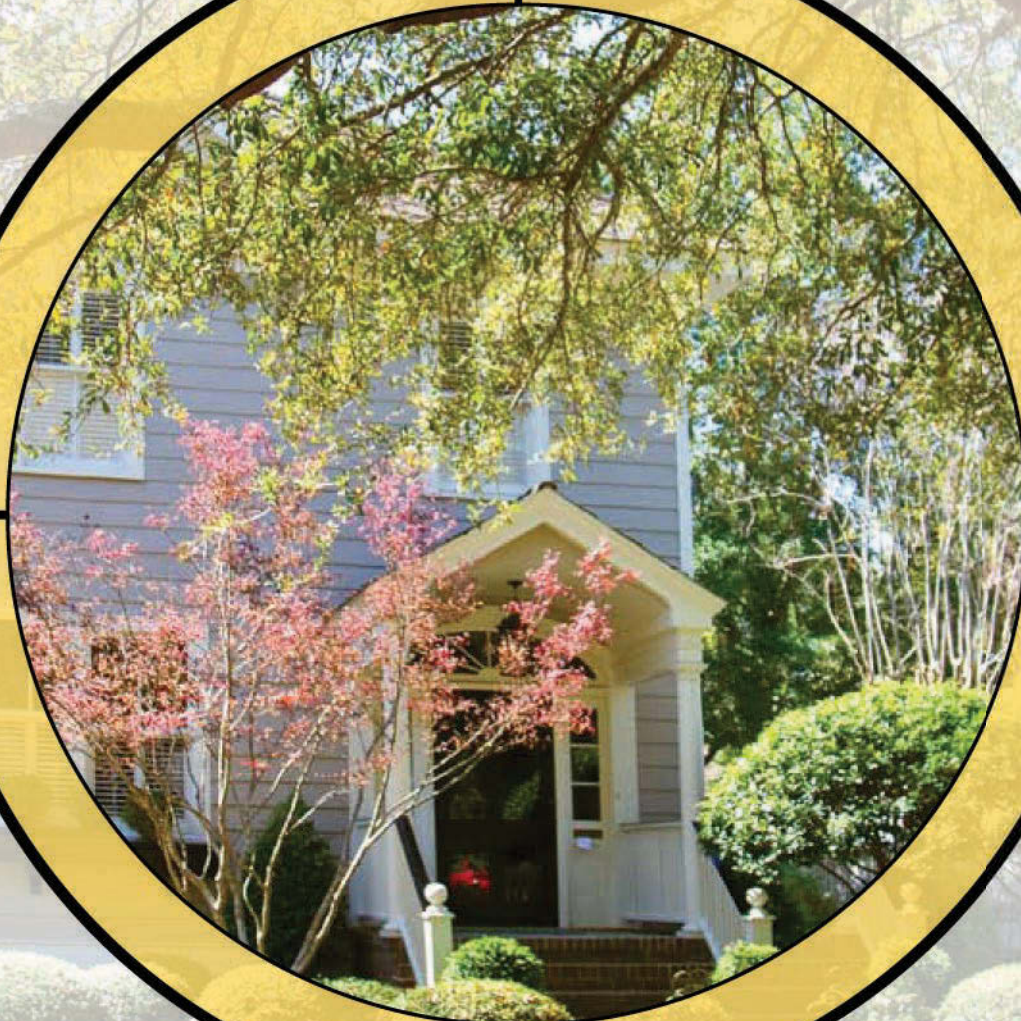
Charleston can sometimes, well, bite. Take in those same postcard-perfect elements from the itchy eyes of an allergy sufferer and the flowers become pollen-ridden time bombs, historic homes shrink into mildew and dust mite magnets, and the trees? Itching machines. The state bird—the Palmetto bug, that is—is even suspect: it's a major allergen that considers the peninsula *its* Holy City.

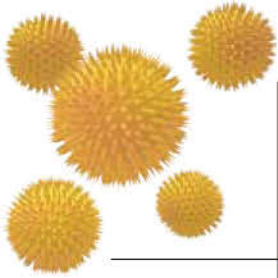
As sniffles echo through the area, we sought a little schooling on the matter. Writer Melissa Bigner sat down with Dr. Jeffrey Dietrich, an allergist/immunologist affiliated with Roper St. Francis Healthcare, to clear the... *achoo!* (excuse us) air and guide the way to relief.

## TARGET



Lowcountry residents  
Mission: cause seasonal mayhem  
Assailants: pollen, mold,  
cockroaches, and dust mites





# THE Basics

**50 Million**  
people in the United States suffer from allergies

## What are allergies?

It all starts with the immune system: its job is to protect the body against harmful invaders like viruses and bacteria. Sometimes, however, the system's defenses are too aggressive and normally harmless substances such as dust, mold, pollen, or foods are mistakenly identified as dangerous. In allergy-prone people, their overly aggressive immune system response leads to unpleasant—and in some cases life-threatening—symptoms.

## What happens when you have an allergic reaction?

When a sensitive person inhales an allergy-causing substance (called an allergen), such as ragweed pollen, the allergen binds to allergic antibodies called IgE. This leads to a cascade of events that result in the release of histamine and other chemicals that cause the allergic reaction.

## What kinds of symptoms arise?

Symptoms vary depending on which body systems are involved. People who are allergic to foods, medications, or insect stings, for example, can develop something called anaphylaxis, an immediate life-threatening reaction involving multiple body systems. Anaphylaxis can include symptoms such as hives, itching, difficulty breathing, swelling of the throat or tongue, dizziness, or, in severe cases, death. There are also allergic skin conditions such as atopic dermatitis (eczema) and contact dermatitis.

But the type of allergy that most people encounter—especially in the spring—is called allergic rhinitis, commonly known as hay fever. This primarily involves reactions in the nose and eyes. Common symptoms include sneezing, congestion, runny nose, post-nasal drip, headaches, itching, and watery, red eyes. Allergic rhinitis also increases the risk of developing associated conditions such as ear infections, sinus infections, obstructive sleep apnea, and asthma.

## Is it Allergies or the Common Cold?

Even doctors have a tough time diagnosing the difference, especially in kids, who tend to have runny noses all year long. "However," says Dr. Dietrich, "allergic rhinitis does involve a clear runny nose, itching, and is more persistent and ever-present, while colds may be associated with fevers and discolored nasal secretions, and usually get better within a week or two." Also, allergic symptoms tend to set in quickly and all at once, while cold symptoms take turns making their appearance.

As for the mucus itself, Dietrich says clear, thin, stringy mucus is more likely to be an allergic reaction. "But mucus will also be clear early in the course of a viral upper respiratory infection (common cold)," he adds, noting that if it is an infection, mucus will become discolored and thick in a matter of days. If the discoloration and other symptoms don't wane after 10 days or if the symptoms worsen, a bacterial sinus infection might have taken root. That's often the time for antibiotics, he says.



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Jeffrey Dietrich, MD

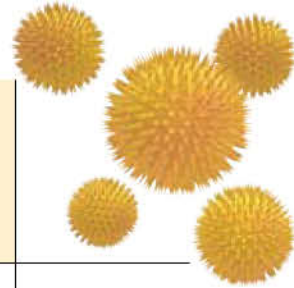
**"THE TYPE OF ALLERGY THAT MOST PEOPLE ENCOUNTER—ESPECIALLY IN THE SPRING—IS CALLED ALLERGIC RHINITIS, COMMONLY KNOWN AS HAY FEVER."**

*—Jeffrey Dietrich, MD*

PHOTOGRAPH BY JOHNATHAN BALLETT



# WHO GETS Allergies?



## What's in a Name?

"Nonallergenic" and "hypoallergenic" appear on a host of products from skincare items to cosmetics and beyond. Nonallergenic typically refers to products that have little to no allergens, and hypoallergenic—a word that first appeared in a cosmetics campaign in 1953—supposedly indicates the same. However, neither has medical roots, nor do they appear in medical textbooks or references as legitimate terms. "Unfortunately," says Dr. Dietrich, "there aren't regulations or standards to determine which products can carry these designations." And since everyone has their own set of what they are allergic to or not (nuts, anyone?), there are no guarantees that a product dubbed nonallergenic or hypoallergenic will not set you off. Your best bet is to consult an allergist to determine what you're legitimately allergic to, then review product labels carefully before purchasing.



## Who gets allergies?

Allergies affect people of all ages, races, and socioeconomic backgrounds. They can develop for the first time at any age but more commonly begin in childhood. Genetics can play a role—people who have family members with allergic disorders (i.e., allergic rhinitis, asthma, food allergies, eczema) are more likely to develop allergies themselves.

## Do we know how many people suffer from, or experience the impact of, allergies?

The American College of Allergy, Asthma, and Immunology estimates that 40 to 50 million people in the United States suffer from allergies. A 2008 study from the Agency for Healthcare Research and Quality reported that from 2000 to 2005, the total cost of allergic rhinitis nearly doubled from \$6.1 billion to \$11.2 billion. Additional studies found that 52 percent of working adults report that allergic rhinitis interferes with their performance at work or has caused them to miss work, while a 2009 Pediatric Allergies in America survey found that 40 percent of parents of children with allergic rhinitis report that their child's condition interferes with their performance at school.

## Are allergies more prevalent now than in previous generations?

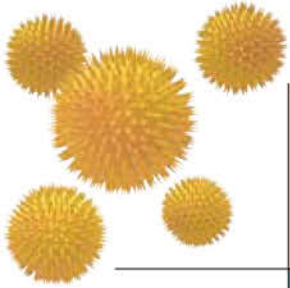
Multiple studies have shown that allergies are on the rise. One leading theory, called the "Hygiene Hypothesis," cites public health achievements like better sanitation, higher quality food storage, cleaner water supplies, more vaccines, and antibiotics as a cause. The theory contends that because our immune systems are not as busy fighting infections, they are more prone to developing an allergic type of immune response instead.

# \$11.2 Billion

the total costs of medical expenditures due to allergic rhinitis



PHOTOGRAPH BY JOHNATHAN BALLIET



# UNWELCOME Irritants

## 52%

of working adults report that allergic rhinitis interferes with their performance at work.



### How do the seasons affect allergies?

Some allergens, such as dust mites, mold, cockroaches, and pet dander, are present year-round, with some seasonal variability. Plant pollens, however, are present in a seasonal pattern. Most tree pollens show up in the early spring, grass pollen in the later spring to summer, and weeds in the summer to fall.

### Does everyone react to pollen to some degree?

No. People without allergies typically do not have any reaction to airborne pollen.

### What about asthma? What is it and how does this condition relate to allergies?

Asthma is a chronic inflammatory lung disease characterized by recurrent narrowing of the airways in the lungs that leads to cough, wheezing, or difficulty breathing. The National Heart Lung and Blood Institute Guidelines for the Diagnosis and Management of Asthma recommends that patients with persistent asthma be evaluated for allergies since a majority of patients will have allergies that may contribute to their asthma.

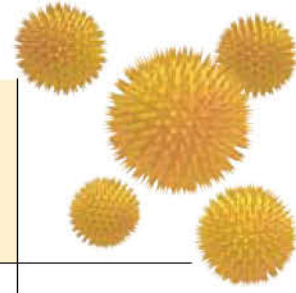
### Sniffly, Sneezy Charleston

According to Dr. Dietrich, because of the levels of rain and the mild temperatures in the Lowcountry, pollen seasons are more prolonged here. In fact, there is a significant amount of some type of pollen in the air through the majority of the year (except during our short winter). And thanks to our humid climate, dust mites and molds are more prevalent here than in other parts of the country.

"Overall, Charleston can be pretty challenging for people with allergies," says Dr. Dietrich. "But don't sit back and suffer. There are excellent treatment options available these days and the right combination can provide relief for just about everyone."



# FINDING Relief



## So let's say I've got the symptoms you've mentioned. What should I do?

Patients with infrequent or minimal symptoms can find relief with over-the-counter (OTC) allergy medications, while others benefit from seeing their primary care provider for a trial of prescription allergy medications. In some cases, however, OTC or prescription medications aren't enough or produce undesirable side effects. For these patients, the best option is often an evaluation by an allergist/immunologist.

## What happens when you visit an allergy doctor?

First, he or she will conduct a thorough health history and physical exam to determine the likelihood that allergies are causing symptoms. If so, your doctor may ask you to undergo a series of allergy tests (via skin or blood test) to either confirm or disprove reactions to particular allergens. In most cases, skin tests are the preferred method because results are immediate and less painful, and the method is better able to detect allergies. This test consists of skin pricks to the back or inner arms, each with a tiny amount of a single purified allergen. If the patient is allergic to the substance, redness and swelling will occur at the site within 20 minutes, enabling the doctor to single out which allergens are causing the reactions.

## When is a blood test a better idea?

Some prescription medications and existing skin conditions interfere with skin testing.

## If someone tests positive for an allergen, how do you treat them?

There are three types of treatment: avoidance, medication, and allergen immunotherapy (or allergy shots). Even though exposure to most triggers of allergic rhinitis (dust mites, molds, and animal dander) can be reduced, it's nearly impossible to totally eliminate exposure. Medication can be very effective; most over-the-counter (OTC) allergy treatments contain antihistamines that block the effects of histamine. Newer "second-generation" antihistamines can last up to 24 hours and are non- or low-sedating, among them: Zyrtec (cetirizine), Claritin (loratadine), and Allegra (fexofenadine). Prescription medications which can often provide additional relief include additional antihistamines, nasal corticosteroid sprays (i.e., Flonase, Nasonex), nasal antihistamine sprays (i.e., Astelin, Astepro, Patanese), and a variety of allergy eye drops.

The most effective long-term treatment for allergies are shots, which are good options for people who don't respond well to medications, experience side effects, have unavoidable allergen exposure, or desire a more permanent solution to their problem. Your allergist will inject incremental doses of the offending allergen, increasing the strength each time. The stepped-up doses cause the immune system to become less sensitive to the substance over time.

## Aside from temporary itching and swelling near the injection area, are there any major side effects to the shots?

A report from the Mayo Clinic found the incidence of adverse reactions to be less than two-tenths of one percent, and most reactions were mild and responded quickly to medical treatment.

## Kick Allergens to the Curb

*Follow these simple tips to lessen the allergens in your home:*

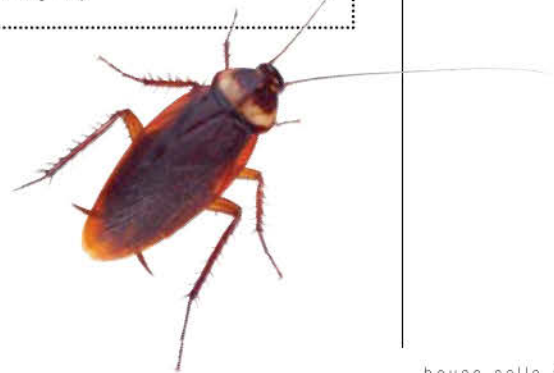
**Dust Mites:** These microscopic creatures live in common house dust, most highly concentrated in pillows, mattresses, and upholstery. Reduce them by encasing mattresses and pillows with "mite-proof" covers, washing bed linens in hot water regularly, cutting down on bedroom dust collectors (like stuffed animals), keeping indoor humidity below 50 percent, and getting rid of carpeting.

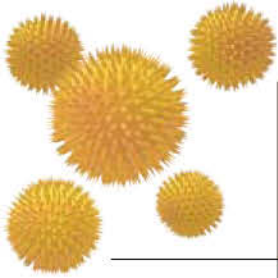
**Pet Dander:** Pet dander (or skin flakes), animal saliva, and urine can cause allergies. For those sensitive to these allergens, your best bet is for Fido to dwell outdoors. Otherwise vacuum often, keep pets out of the bedroom—"at all times," stresses Dr. Dietrich—and bathe them regularly.

**Mold:** Mold is present in outdoor air in the Lowcountry most of the year, says Dr. Dietrich, and sneaks inside via doors or windows. To avoid excessive mold growth indoors, repair any water leaks, clean moldy surfaces with a diluted bleach solution, replace moldy materials that can't be cleaned, limit your indoor house plants, and reduce the humidity level to below 50 percent. Mechanized air filtration systems can also be added to HVAC systems to lessen airborne mold and allergens.

**Cockroaches:** These unwelcome pests carry allergens in their fecal matter, saliva, and other secretions. Cockroach allergen levels are typically highest in the kitchen, and keep in mind that for every one you see, there's a metropolis more nearby. Don't leave uncovered leftovers out and have your house professionally exterminated regularly.

**40%**  
of U.S. children suffer from chronic allergies severe enough to limit their activities.





# LONG-TERM Treatment

**1 in 3**  
children will suffer from allergies if even one of their parents suffers from an allergy of any kind.

## What treatment innovations are out there?

Although allergen immunotherapy has been used effectively since 1911, the allergen extracts continue to improve. Additionally, the optimal dosing and shot schedule continue to be refined—in January 2011, the Allergy and Immunology Joint Task Force on Practice Parameters published updated practice guidelines on allergen immunotherapy. Additionally, a relatively new injectable medicine called Xolair blocks the allergy-producing IgE antibodies and has been found to be very helpful for difficult-to-treat allergic asthma.

## Can you cure allergic reactions long-term, or is it just about treating and alleviating symptoms?

Allergy shots are still the only treatment that can change the course of allergies. Although medications can be quite effective at temporarily decreasing symptoms, they don't change the body's reaction to allergens. In contrast, shots can increase the immune system's natural resistance. After patients build up to the fully effective dose, they typically adopt a monthly injection regimen for a period of three to five years. Thereafter, studies have shown that the allergy shots often can be stopped and patients can experience ongoing benefits for years or even a lifetime. Ultimately, allergies become something many immunotherapy patients don't have to think about anymore.

For example, a 2007 Cochran Database Review of more than 51 studies concluded that allergy shots for those with allergic rhinitis resulted in significant reduction of symptoms and decreased medicinal regimens. One study of more than 8,000 allergic rhinitis patients found that 77 percent of patients treated with medication developed new allergies over the following seven years, while only 27 percent of those treated with shots did. Also, a 2010 Cleveland Clinic study found that on average, patients treated with allergen immunotherapy had a 33 percent decrease in their total personal healthcare costs.

## Sinus Surgery 101

Sinusitis occurs when the nasal passages and sinus cavities become inflamed and infected. While colds can create the condition, persistent allergic reactions like excessive nasal secretions and agitated, histamine-rife nasal membranes can also be a cause. When airflow and the natural outflow from the sinuses are both inhibited, infections stem from trapped bacteria. Symptoms include congestion, facial pressure, and headaches. More serious side effects can escalate to include abscesses—backed-up pockets of infected material—that affect the eyes or brain.

To alleviate the condition, Dr. Raymond Kaplan, an ENT affiliated with Roper St. Francis Healthcare, says surgery might be the solution if a chronically afflicted patient has not responded to medicinal therapies and CT scans have shown that clearing out the passageways and sinuses (and possibly removing diseased tissue) would be beneficial. Dr. Kaplan performs some 15 sinus surgeries a month, and credits today's more conservative endoscopic surgeries (through image-guided technology, surgeons keep more of the nasal tissue intact) and a procedure called "balloon sinuplasty" for patients' good prognoses and relatively quick recovery periods.

Balloon sinuplasty (or catheter sinusotomy) is a procedure introduced five years ago and doesn't involve removing tissue at all. Rather, it entails running an image-guided wire into the nasal cavities and areas that a CT scan has shown to be congested or blocked. After a tiny, elongated balloon is inserted and inflated in these areas, and then removed, realigned bone forms in its place, reopening the passageway for secretions. Tissue follows the new curvature of the bone, and hard-to-drain areas are unblocked. Dr. Kaplan explains that it's not a cure-all, but is something he sees as a complement to medicinal treatment and traditional endoscopic measures. "I do this in conjunction with almost all of my sinus surgeries now," he says.

PHOTOGRAPH (OPPOSITE PAGE) BY CHRISTOPHER NELSON



Raymond Kaplan, MD

**PERSISTENT ALLERGIC REACTIONS LIKE EXCESSIVE NASAL SECRETIONS AND HISTAMINE-RIFE NASAL MEMBRANES CAN CAUSE SINUSITIS.**

PHOTOGRAPH BY JOHNATHAN BALLIET