

Heading: The Reason for the Sneezin’

By ANN METZ

Spring may signify new beginnings, but for 26 million Americans it also means the start of seasonal allergies.

For many allergy sufferers, the sneezing, wheezing, coughing and itching can be downright annoying. For those who experience severe allergic reactions, the effects can be life threatening and may ultimately lead to other conditions, such as asthma and sinus infections. If left untreated, a patient’s quality of life may suffer.

### **Something in the Air**

The American Academy of Allergy, Asthma and Immunology estimates that seasonal allergies, also called allergic rhinitis or hay fever, affect 20 percent of the U.S. population. The biggest culprit is pollen from grasses, trees and weeds that is spread by the wind. Once inhaled, the pesky airborne allergens lodge in the mucus lining of the nasal passages and provoke the immune system to release a chemical substance called histamine, which inflames blood vessels and causes swelling and itching.

“In East Tennessee, spring means beautiful flowers and trees accompanied by the sound of sneezing and the blowing of noses,” said Dr. Robert M. Overholt, an allergist and immunologist with The Allergy, Asthma & Sinus Center in Knoxville. “Here, we’re exposed to tree pollen from late February to early May.

“But it doesn’t stop there,” he added. “We have grass pollen from mid-April to mid-June, and Bermuda grass pollen from June to early August. Then, we have weed pollen from mid-August through the first frost.”

Overholt explained that every tree has a flower and every flower puts out pollen. “And the pollen floats through the air and into people’s noses. You either have a rose for a nose or (in the case of people with seasonal allergies) a lemon for a nose.”

### **You Can Run, But You Can’t Hide**

Plants pollinate across the U.S. at relatively the same time, but geographic location and environmental factors such as sun, rain and wind affect pollen counts.

“East Tennessee is a privileged area for people with allergies,” said Dr. Allan M. Rosenbaum, an otolaryngologist with Greater Knoxville Ear, Nose & Throat Associates. “People come to this area to experience the natural beauty... and that is a big factor in allergies. We have a greater variety of plant species here than anywhere else in the continental U.S.”

In fact, in recent years Knoxville has been named one of the worst places to live for people with allergies and asthma. According to the Allergy and Asthma Foundation of America, Knoxville currently holds the #4 spot. (Knoxville was ranked #1 in back-to-back years from 2002 through 2005.)

“Although we have a lot of doctors dedicated to treating allergies, we’re consistently ranked among the worst cities in the country,” Rosenbaum said, citing the formula for determining a city’s rank is based on several factors including air quality, smoking laws, pollen count and the number of certain prescription medications.

Try as you might, you can't outrun allergies. Airborne pollen can travel upwards of 400 miles, so one would have to make a major move to escape allergens—and even then new ones may be lurking. You can break the cycle of seasonal allergies by moving, but sooner or later new allergies will develop.

So why are some people plagued by allergies, while others escape sneeze-free? Scientists offer a few explanations. An emerging theory, called the “hygiene hypothesis,” suggests that a lack of exposure to allergens in childhood may increase one's chances of developing allergies, Rosenbaum explained. However, genetics also play a role; a family history is often an indicator that someone will develop allergies.

### **Track and Attack the Triggers**

"Seasoned" allergy sufferers can anticipate when their allergies will flare up, but it's not always clear what triggers them. Overholt and Rosenbaum agree that the key to effective treatment is pinpointing the cause with a complete medical history and skin or RAST blood tests.

According to Overholt, skin testing is quicker, less expensive and more accurate than blood testing, and involves injecting or applying a weakened allergen extract to the skin on the arm or back. If the patient has a positive reaction, a reddish area (called a wheal or hive) will appear at the site. The doctor will use this information to determine the severity of the allergy and how best to treat it.

“If we know exactly what is causing the allergy, we can discuss ways to avoid the trigger, such as staying indoors while the grass is being cut,” Overholt said.

In addition to blood and skin testing, Rosenbaum offers in-office CT scanning and nasal endoscopy “to better diagnose nasal and sinus symptoms.”

According to Rosenbaum, prescription and over-the-counter antihistamines and decongestants are all popular methods to manage allergy symptoms. Over-the-counter medications can be effective in treating mild allergies, but people need to be aware of adverse reactions, particularly those who suffer from high blood pressure. For patients more seriously affected by airborne allergens, immunotherapy may be recommended.

### **More Than a Shot in the Dark**

Immunotherapy works by exposing the patient to small amounts of the weakened allergen over time, training the body slowly until it learns to tolerate it. It doesn't cure allergies, but brings about desensitization.

In the case of allergy shots, treatment is given by injecting gradually stronger doses of the allergen extract once or twice a week at first, then at longer intervals: for example, once every two weeks, then every three weeks and eventually every four weeks.

Treatment is effective for allergies to pollen, dust mites, certain molds, animal dander and stinging insects, Overholt explained. Allergy shots take six months to a year to become effective, and injections are usually required for three to five years.

In addition to traditional allergy shots, new immunotherapy treatments are gaining recognition. Sublingual (oral) immunotherapy, for example, works in the same way as allergy shots to build up a person's tolerance to allergens. The difference with sublingual immunotherapy, also called SLIT, is the allergen extract is given as drops (usually placed under the tongue and then swallowed or spit out) rather than through injections.

"The last 20 years have seen increasing use of SLIT to treat allergies," Rosenbaum said. SLIT has been approved by the World Health Organization and the European Association of Allergy and Clinical Immunology as an alternative treatment for allergic rhinitis since 1998. Currently, SLIT is widely used in many European countries, but it is still considered investigational in the U.S. It is not approved by the Food and Drug Administration

A number of patients in East Tennessee are already receiving sublingual immunotherapy. However, without FDA approval, SLIT is not covered by medical insurance, Rosenbaum noted.

"In our limited experience with SLIT, patient compliance and satisfaction have been extraordinary, and tolerance is fantastic," Rosenbaum said. "I am very excited about this treatment method, and I look forward to the day we can offer it to everyone."

[PHOTO NOTES: mug shots]

Caption 1: Dr. Robert M. Overholt, Allergist and Immunologist, The Allergy, Asthma & Sinus Center, Knoxville.

Caption 2: Dr. Allan M. Rosenbaum, Otolaryngologist, Greater Knoxville Ear, Nose & Throat Associates.