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# Breathing as a Critical Health Issue

or too many of us, breathing is a critical health issue, because—by the millions—we have asthma. According to the Centers for Disease Control (CDC), over 16 million adults and seven million children suffer with this disease.

"There are two important things to say about asthma," notes Dr. Dave Judge of the Allergy, Asthma & Sinus Center with offices in Cary, North Raleigh, and Wake Forest.

"On the one hand, asthma is a serious health problem that is increasing at a breathtaking pace—no pun intended. And secondly, we have better tools, better management, knowledge, and medications to deal with asthma than ever before. Certainly reducing the incidence of asthma is an important goal—but in the short-term, it's critical that people of all ages who have asthma become educated about and learn to manage the disease."

In North Carolina, he reports, 217,333 children and 533,781 adults currently have

asthma, with estimates that an additional 300,000 cases are undiagnosed. The CDC cites asthma as the number one reason for school absenteeism in America, more prevalent among children than any other chronic disease.

"It's true that the incidence of asthma has increased by 55 percent over the last 20 years, and the national bill for this disease—in terms of treatment and lost productivity—exceeds \$14 billion each year," Dr. Judge says. "Asthma attacks occur when a sensitive person is exposed to a trigger (see box)—a substance or situation that sets off the asthma event. There is no one single answer, and no single cause, for the increase in asthma. Pollution of indoor and outdoor air certainly is a principal contributing factor."

### **ASTHMA AND AGE**

Asthma, inaccurately, is often thought of as a childhood health problem, says Dr. Judge, "and in fact the majority of children who become sensitive to airborne allergens

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With a new patient, Dr. Judge, an allergistimmunologist, outlines the importance of prevention and compliance to successfully manage allergic conditions.

For more information about diagnostic and treatment options for allergies, asthma, and sinus conditions, contact:

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## **ASTHMA TRIGGERS**

asping for air is gasping for life—and that is the essence of the problem for people with asthma," says Dr. Judge. "With asthma, lungs become inflamed and constrict, limiting airflow and making breathing difficult. Avoiding triggers—events or substances that set off this reaction—needs to be a way of life for people of all ages who have asthma."

Among common asthma triggers, he says, are:

- Cigarette smoke. "It's well-established that the effect of cigarette smoke on people with asthma is severe."
- Pet dander. "Cat, dog, and horse dander, and even the molting feathers of pet birds, can cause severe reactions."
- **Dust mites.** "The excrement of microscopic dust mites is a potent allergen. They are found in bedding, upholstery, drapery and rugs, and thrive on moisture and human skin cells."
- Ozone and particulate matter. "We're well aware polluted air—from high ozone levels and/or particulate matter-causes inflammation in the lungs that can easily trigger an asthma event."
- Cockroaches are a primary allergen.
- Mold. "Mold spores can cause allergy and asthma attacks even when mold is not growing. It is commonly found in old homes and school buildings."
- Unvented gas appliances, heaters, and stoves. "Nitrogen oxide can pollute indoor air without adequate venting of gas appliances—such as water heaters, stoves and clothes dryers—and also through wood-burning fireplaces and stoves."

during the first three years of life develop asthma later on. When asthma begins in childhood, it is frequently with atopy—the inherited tendency to produce IgE antibodies against common environmental allergens such as house-dust mites and fungi.

"Adult-onset asthma can occur in a variety of situations. Allergens may continue to play an important role. In other cases, sinusitis, nasal polyps, and sensitivity to certain medications can trigger asthma-like reactions.

"It's estimated that as many as 10 percent of older adults may have asthma, where diagnostically it is sometimes overlooked. Wheezing among the old is often considered simply a sign of aging, when in fact it may be an asthmatic condition."

### **EFFECTIVE TREATMENT**

In the past 20 years, Dr. Judge notes, "we have seen remarkable advances in our ability to treat and manage asthma, and at the center of these developments are the inhaled medications.

"There are several types of inhaled medications available to prevent and control asthma attacks. They can be a powerful 'tool' in managing asthma, when used properly. Incorrect or over-usage, however, can actually make chronic asthma worse, and can make severe episodes harder to bring under control.

"Beta-agonist medications, administered by inhalation, work in a manner similar to adrenalin, opening airways and easing breathing rapidly. Inhaled steroid medications, on the other hand, are preventive in nature. When used as prescribed over a period of time, they have an anti-inflammatory action which prevents the airways from becoming as inflamed during an asthma episode.

"Occasionally patients ask about the safety of using inhaled steroid medications. It is important to understand that prolonged use of oral steroids can cause potentially serious side effects. Inhaled steroids, however, are not associated with these side effects at normal doses. Because they are site-specific, they are rapidly metabolized.

"My patients with asthma and I share a common goal, and that is that they learn to manage their health condition with great effectiveness, and as a consequence are able to live full and active lives. It's true that nationally we still experience deaths due to asthma, and far too many patients are rushed to hospital emergency rooms for treatment.

"But that is not true of my patients. I have rarely had an asthma patient who required emergency room treatment or who ended up in intensive care. Our goal is well-controlled asthma, which means that symptoms are minimal or non-existent, the patient is able to lead a normal life, with lung function as good as it can be, while taking a minimum amount of medication without any significant side effects.

"One extensive study, reported in the Journal of Allergy and Clinical Immunology, concluded that allergy specialty care resulted in a 27 percent reduction in emergency hospital care for asthma. It's a management issue—of understanding and managing the disease in all of its aspects, including lifestyle and environmental issues, exercise, stress, and other possible triggers." Ikh