



Central Office: 505 Silas Deane Highway, Wethersfield, CT 06109 Phone (860) 721-2822 Fax (860) 721-2823
Berlin: 240 Kensington Road, Berlin, CT 06037 Phone (860) 828-7017 Fax (860) 828-9248
Newington: 131 Cedar Street, Newington, CT 06111 Phone (860) 665-8586 Fax (860) 665-8533
Rocky Hill: 761 Old Main Street, Rocky Hill, CT 06067 Phone (860) 258-2770 Fax (860) 258-2767
www.ccthd.org

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Spring Is a Mixed Blessing for Individuals with Asthma and Allergies By Lori DiPietro, Health Educator

When many people think of spring, they think of warmer weather, blooming flowers and staying outdoors. However, for individuals with allergies and asthma, spring is a mixed blessing.

Asthma and allergy sufferers might take comfort in the knowledge that 60 million people in the U.S. are affected by allergies (1 out of 5 people) and an estimated 25 million people (8% of the population) have asthma. Allergic diseases are the fifth leading cause of chronic disease in this country and the third leading cause of chronic disease in children under the age of 18. According to the American Academy of Allergies, Asthma and Immunology (AAAAI), asthma accounts for approximately 500,000 hospitalizations each year, and 10.5 million physician office visits every year.

Although not all asthmatics have allergies, there is a link between the two diseases. According to the Asthma and Allergy Foundation of America (AAFA), over 70% of people with asthma also have allergies. Both are immune reactions caused by the interaction of genetic and environmental factors. Allergies are exaggerated reactions of the immune system to substances that normally cause no symptoms in most people. Reactions may involve the skin, the eyes, the digestive tract, or the respiratory system. Asthma is a chronic, inflammatory disease of the lungs that causes difficulty breathing. Symptoms include wheezing, coughing, shortness of breath, and tightness in the chest.

No matter what causes an allergic reaction, the process that occurs in the body is generally the same. A person is exposed to a substance to which he or she is especially sensitive. The very first time this occurs, the body produces antibodies to fight against the effects of the allergen. Common allergens include pollens, molds, certain foods, dust, pet dander, cosmetics, insect venoms, and drugs. The next time the body is exposed to this substance, the antibodies react by causing the release of histamine. This chemical causes blood vessels to enlarge and slows the rate of blood flow through them, resulting in the leakage of fluid through cell walls. The fluid causes swelling of surrounding tissues; this inflamed tissue creates symptoms such as watery eyes and stuffy nose. Histamine also causes the smooth muscles of the internal organs to contract, which may then cause stomach cramps or an asthma attack to occur.

Asthma attacks are brought on by a variety of triggers – these can include allergens, infection, chemicals, cold air, exercise, stress, and other factors. When a person is exposed to a trigger, the airways leading to the lungs become more inflamed or swollen than usual, and the walls of these passages become smaller as the smooth muscles become tighter. The third stage of an asthma attack (after swelling and tightening) is clogging. The airways increase production of mucus which clogs the already constricted breathing passages so air cannot get through.

The good news about allergies and asthma is that both conditions can be treated successfully. The first method of treatment for both conditions is avoidance. This means staying away from the substance that causes the allergic reaction, if possible. Otherwise, allergy treatments may involve both over-the-counter and prescription medications such as antihistamines, decongestants, and immunotherapy, which is a series of shots that contain the allergen causing the body to build up a protective antibody that reduces the symptoms as the body becomes desensitized to the allergen. In a smaller number of cases of allergies, surgery may be advised, and some people are turning to acupuncture for relief from their allergy symptoms.

With regard to asthma treatment, the same antihistamines and decongestants prescribed for allergies are often ordered. Additionally, many asthmatics use inhalers to help them breathe. Inhaled medications are often anti-inflammatory agents, and may be corticosteroids or non-steroidal medications. They reduce both the swelling and mucus production associated with asthma attacks. In addition to being inhaled, corticosteroids also may be administered in pill form. Anti-inflammatory medications are long-term therapy for asthma. In addition, bronchodilators are available as an inhaler or a pill that may also be prescribed to relieve coughing, wheezing, shortness of breath, and difficulty breathing. (Some are

available in liquid form and can also be injected.) They work by opening up the bronchial tubes, or air passages, to allow more air to flow through, and are used as quick relief for acute symptoms (rescue inhalers).

While there is no cure for asthma or many allergies, needless suffering from acute forms of these conditions can be avoided by getting the appropriate medical attention and using treatment remedies properly and consistently. Symptoms can and should be controlled so they are minimal or even absent. Anyone who experiences a severe bout with allergies or asthma should contact a physician immediately for treatment.

To combat the fight against asthma, the Central Connecticut Health District is conducting a program called "Putting on AIRS" that is funded by a three year grant from the Connecticut Department of Public Health (DPH). Putting on AIRS is a program designed to target the reduction of environmental asthma triggers in the home. This grant began in September 2009 and will continue through August 2012. This program is available to all participating town residents, including the towns of Berlin, Newington, Rocky Hill and Wethersfield, who suffer from asthma and/or have a child who suffers from asthma. This program is provided at NO cost to the resident. The following services will be provided during the home visit: the nurse/educator/respiratory therapist reviews the physician's asthma plan and medications with the client. The client will be provided with additional education to help understand how to better manage their asthma. The environmental specialist will walk through the home to help identify causes of asthma and will show the client how to minimize the asthma triggers in the home. A confidential report will be developed as part of the child or adult's medical record to help control asthma. To refer a diagnosed asthma patient to this program, please contact Hilary Norcia, MPH at 860-665-8571.

For further information about allergies or asthma, visit the American Academy of Allergy Asthma & Immunology at www.aaaai.org or the Asthma and Allergy Foundation of America at www.aafa.org. Additional information about allergy and asthma, as well as other public health concerns is available at the Central Connecticut Health District at www.ccthd.org, or by calling (860) 721-2822.