Asthma & Allergies

APRIL 2009  IMPROVING YOUR QUALITY OF LIFE

Learn more at www.mayoclinic.com with Mayo Clinic Health Manager

Breathe Easy...

powered by Microsoft HealthVault®
Foreword

BY PAUL A. GREENBERGER, MD FAAAAI
PRESIDENT, 2009-2010 AMERICAN ACADEMY OF ALLERGY ASTHMA & IMMUNOLOGY

It is estimated that 300 million people worldwide are affected by asthma. This statistic is slightly less than the total population of the United States. In addition, the number of people diagnosed with asthma is on the rise, increasing 75% from 1980-1994.

Asthma rarely strikes alone. Eight of every ten people with asthma also suffer from other allergies including rhinitis, sinusitis, skin, insect or food allergies. To complicate matters, there are “masqueraders” of asthma as not everyone who wheezes or coughs has asthma. Also, there are more and more medications to choose from to treat patients with asthma and allergies. Some medications or treatments work much better in some patients than others, making symptoms sometimes difficult to control.

Fortunately, there are ways to improve the quality of life for most sufferers of allergic diseases. Members of the American Academy of Allergy, Asthma & Immunology (AAAAI) have the advanced knowledge to help diagnose patients with allergies, asthma and other immunologic conditions, including recurrent sinus or bronchial infections or the cough that won’t go away.

When you see an allergist, you benefit from the additional expertise of a specialist who is trained to accurately diagnose your condition, personalize your care, control your allergic disease and improve your health.

Allergists are pediatricians or internists who have completed two to three years of additional, formal education and research in allergy/immunology. Typically, allergists become interested in asthma while they are in medical school, and many allergists have allergies and asthma themselves. After completion of medical school, the “would-be” allergist completes three years of residency education in either pediatrics or internal medicine or four years in a combined pediatrics/internal medicine residency. Then, there is a very competitive application process for fellowship education in allergy/immunology.

We want to make sure asthma or allergies don’t prevent your children and adolescents from attendance at school or participating in sports. Similarly, our goal for adults with asthma is to help them control their allergic disease and lead as normal lifestyles as possible without missing work, exercising or important events or occasions due to uncontrolled wheezing or coughing.

In addition to helping patients suffering from asthma and allergic disease, the mission of the AAAAI includes educating the public, patients and healthcare providers about asthma and other allergic and immunologic diseases. The articles in this supplement are intended to give you useful information about allergic diseases, address some of your most common questions and offer additional resources to help you improve the quality of your life by gaining control of your asthma and allergies.

“Fortunately, there are ways to improve the quality of life for most sufferers of allergic diseases.”

Dr. Paul A. Greenberger

Mediaplanet would like to say a special thanks to...

AMERICAN ACADEMY OF ALLERGY
ASTHMA & IMMUNOLOGY
www.aaaaai.org

The AAAAI represents allergists, asthma specialists, clinical immunologists, allied health professionals and others with a special interest in the research and treatment of allergic disease. Established in 1943, the AAAAI has more than 6,500 members in the United States, Canada and 60 other countries. This non-profit organization serves as an advocate to the public by providing the most extensive collection of online information on allergic disease at www.aaaaai.org

Microsoft® HealthVault™ is a platform designed to put consumers in control of their health information and share it with those they trust. HealthVault enables users to gather and store health data and share it among different health solutions as well as upload data from health and fitness devices—giving consumers easy access to their health information.

Concerned about Allergens and Asthma?

We offer complete allergen analysis of your home using our exclusive state-of-the-art MARIA™ testing.

Call: (434) 984-2304

Charlottesville, VA 22903
mail@inbio.com
www.inbio.com
Fortunately, there are ways to improve the quality of life for most sufferers of allergic diseases.

Breathe Easy...

with Mayo Clinic Health Manager

Asthma treatment doesn’t end when you leave the doctor’s office. Mayo Clinic Health Manager helps you be an active participant so you can:

- Take control of asthma with the Asthma Control Test
- Learn more about asthma triggers and symptoms
- Track your Peak Flow Meter results
- Be prepared for your next asthma appointment

Mayo Clinic and Microsoft Corporation bring you Mayo Clinic Health Manager, a free privacy and security enhanced online service that provides a place to store health information and receive individualized health guidance and recommendations based on the clinical expertise of Mayo Clinic.

Mayo Clinic Health Manager is a free online service. Find out more and sign up today at www.mayoclinic.com
Springtime Sneezes

Is it allergies or a cold?

BY MARIANNE CANTER

As people sneeze their way through spring, many wonder if they are suffering from a cold or have allergies.

According to the American Academy of Allergy, Asthma & Immunology, people often attribute their congestion and runny nose to a cold without realizing that they are actually suffering from allergies. It is important to know the difference because left untreated, allergies can lead to more serious conditions.

The main discerning difference is the length of time the symptoms last. A cold normally disappears after a week or ten days, whereas allergies last for a few weeks or longer. Also, allergies can't be passed from person to person.

A cold is caused by a virus. Allergies are caused by exposure to airborne substances such as dust mites, pets, mold, fungi and the springtime culprit, pollen.

In people with allergies, the body identifies certain allergens as harmful, triggering an allergic reaction within the immune system. This reaction results in symptoms such as sneezing, watery eyes, coughing, post-nasal drip and perhaps a dull headache.

These symptoms can mirror a cold, but unlike a cold virus, an allergic disease is not a condition that someone can just “get over.”

If you think you might have allergies, or if you have been diagnosed with asthma or allergies, an allergist/immunologist is specially trained to help you control your symptoms and put a “spring” back in your step.

### ALLERGIES VS. COLDS

<table>
<thead>
<tr>
<th></th>
<th>ALLERGIES</th>
<th>COLDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms</td>
<td>Runny or stuffed nose, sneezing, wheezing, watery and itchy eyes.</td>
<td>Can include fever, body aches and pains, along with allergy symptoms.</td>
</tr>
<tr>
<td>Warning Time</td>
<td>Symptoms begin almost immediately after exposure to an allergen.</td>
<td>Symptoms usually develop over several days.</td>
</tr>
<tr>
<td>Duration</td>
<td>Symptoms last as long as you are exposed to an allergen and beyond. If the allergen is present year-round, symptoms may be chronic.</td>
<td>Symptoms should clear up within several days to a week.</td>
</tr>
</tbody>
</table>

Knowing the allergen burden in a home and taking steps to reduce exposure helps to control asthma symptoms and improves the quality of life. Asthma accounts for over 1000 hospital Emergency Department visits each month in Washington D.C. The nation's capital has one of the highest asthma rates in the country (14%). Being allergic and exposed to dust mite, cat, dog, mouse and cockroach allergens increases the likelihood of developing respiratory allergies.

Dust samples from beds or carpets can be tested for indoor allergens to check the level of exposure.

Is it Anaphylaxis or Asthma?

BY MARIANNE CANTER

Uncontrollable coughing, severe shortness of breath or tightness in the chest can be frightening. Is it asthma or an episode of anaphylaxis?

According to Andy Nish, MD, an allergist/immunologist in Gainesville GA, it could be either asthma or anaphylaxis; and yes, it is important to distinguish between them.

Asthma is a disease of the lungs characterized by recurrent wheezing, coughing, shortness of breath and chest tightness. Anaphylaxis is a severe allergic reaction which frequently does involve the lungs, but also involves other body systems. “Some treatments for asthma and anaphylaxis may overlap, but there are specific protocols for each,” says Nish. “Because of this, it is important to be able to differentiate between these two diseases.”

Nish cites the example of a child at school who is known to have both asthma and an allergy to peanuts. The young boy has just returned from exercising at recess and he has a cold—two triggers for asthma. He is eating lunch next to someone with a peanut butter sandwich when he begins to wheeze and quickly develops a rash.

“This is clearly an attack of anaphylaxis,” says Nish. “The first clue for anaphylaxis was that his symptoms involved multiple systems of his body. The skin is very commonly involved in anaphylaxis, with itching, swelling and hives. Other body systems that may be affected include the cardiac system and/or nervous system.”

Exposure to allergens is another clue to anaphylaxis. Foods, medicines or insect stings to which someone is allergic will typically produce symptoms within thirty minutes and usually within two hours.

Asthma, while it affects the respiratory system, is not usually associated with symptoms in other parts of the body. At times asthma may be complicated by the fact that it is made worse by nasal symptoms with colds, sinus infections and allergies and by symptoms of heartburn.

Hyperventilation is a condition sometimes seen with asthma. This may be associated with lightheadedness and tingling in hands and feet, and vocal cord dysfunction, which causes a feeling of throat tightness.

Music & Sports Help Kids Cope with Asthma

BY MEGAN ELLIOTT

Could an iPod help teenagers achieve better asthma control? A recent study suggests that it might.

Researchers in Chicago inserted asthma coping messages between digital music tracks that were then distributed to asthmatic teens. The study participants (all low-income African-Americans) recorded the coping messages for each other; they also received two phone calls a day reminding them to take their meds. Combined, these interventions helped to increase adherence from less than 40% to more than 70%.

In another study, researchers in Pittsburgh combined lessons in basketball with asthma education for a group of asthmatic kids between the ages of 6 and 12. After the day-long camp, the children were less likely to need to visit a physician or an emergency room because of their disease.

www.synergyhair.com
ProAir® HFA
#1 albuterol inhaler®¹

Save More. With a valuable discount card, you could receive your first 5 ProAir HFA prescriptions FREE.¹²

Visit ProAirHFA.com

*ProAir HFA is the #1 albuterol inhaler dispensed, based on IMS Health National Prescription Audit.

¹Based on average ProAir HFA co-pay costs of under $20. Qualified patients receive up to $20 off their next 5 prescriptions.


ProAir® HFA is a registered trademark of Teva Specialty Pharmaceuticals LLC. ©2009 Teva Specialty Pharmaceuticals LLC. 090510
New Inhalers!

By Megan Elliott

Asthma inhalers have gone green. Since January, metered-dose inhalers (MDIs) containing chlorofluorocarbons (CFCs) have not been sold in stores. Asthma patients who rely on albuterol inhalers to relieve sudden asthma symptoms must now use hydrofluoralkane (HFA) inhalers.

HFA inhalers are safe and effective, and have been on the market for more than 10 years. CFC inhalers were phased out because they contained a substance that damages the ozone layer.

What does this change mean for patients? First, it’s important to know that the medicine in your inhaler has not changed. Both types of inhalers contain albuterol, which opens up airways during an asthma attack. HFA inhalers simply use a different kind of propellant to move the medication into your lungs. However, the taste and smell of HFA inhalers may be different, and the mist may feel less forceful and warmer. You may need to inhale more slowly or deeply in order to get the full effect of the medication.

HFA inhalers need to be cleaned more frequently than older inhalers. If you don’t properly clean your inhaler it can become clogged, which will reduce its effectiveness. HFA inhalers also need to be “primed” before use. Each inhaler may need to be cleaned and primed differently, so carefully read the instructions that come with your inhaler so that you know how to do this correctly.

Some patients are also concerned because HFA inhalers are more expensive than CFC inhalers. If you can’t afford your new inhaler, contact the Partnership for Prescription Assistance (www.pparx.org) to find out about programs that can help you pay for your medications.

If you have questions about your HFA inhaler, talk to an allergist. If you’re using your quick-relief inhaler more than twice a week, you should also discuss ways to better control your asthma and reduce your inhaler use.

“Your allergist will help determine which HFA inhaler is best for you,” says Paul A. Greenberger, MD, and president of the American Academy of Allergy, Asthma & Immunology. “Physicians should also use this opportunity to evaluate their patient’s current asthma control and recommend treatment changes if needed.”

Asthma on the Rise

By Marianne Canter

More than 9 million U.S. children have asthma, and this number continues to rise.

One of the prevailing theories addressing this increase is called the “Hygiene Hypothesis.” It suggests that living conditions such as those in the U.S. might be too clean. Our kids are not getting enough exposure to germs that train our immune systems to differentiate between harmful and harmless irritants.

“Studies show that individuals living on farms develop fewer allergic diseases. It is believed that farm animals increase exposure to germs. These germs stimulate the immune response and decrease allergic inflammation,” according to Anju Peters, MD, an associate professor in the Allergy/Immunology division at Northwestern University’s Feinberg School of Medicine. “However, this theory doesn’t explain the increase in asthma prevalence in inner cities.”

Peters cites another theory: extended exposure to allergens unique to the urban environment (such as dust mites, cockroach and even rodent allergens) may lead to increase in asthma in inner cities. In addition to increase in allergen exposure, children in inner cities are also exposed to irritants such as cigarette smoke and traffic pollutants that have been shown to increase the risk of asthma.

Some experts believe that lifestyle changes associated with diet and activity are responsible for the asthma epidemic. Increased obesity in general has been suggested as a possible factor responsible for the increase in asthma prevalence. Conversely, some experts speculate that asthma contributes to obesity by promoting a sedentary life style.

Advances in Research offer Hope

By Marianne Canter

Taking microscopic but increasing doses of peanuts may help children develop tolerance, giving hope that there may some day be a cure for this life-threatening condition, according to groundbreaking research presented at the annual meeting of the American Academy of Allergy, Asthma & Immunology.

In a study conducted jointly by Duke University and Arkansas Children’s Hospital, 33 children with peanut allergies received daily therapy starting with doses as small as one-thousandth of a peanut and increasing to 15 peanuts a day over a period of years. Today, most of the children are tolerating peanuts without developing allergic reactions.

Wesley Burks, chief of the division of pediatric allergy and immunology at Duke University Medical center cautions parents not to try this approach on their own, as the results could be life-threatening for children.

“We are optimistic, but advanced studies are necessary before the treatment can be used out of a research setting,” says Burks.

Allergists/immunologists see findings such as these as keys to unlocking cures for food allergies. “New doors are opening each year,” concludes Burks.

Other experts blame rising rates of asthma on a deficiency of vitamin D. They suggest that individuals in urban areas spend more time indoors. This leads to reduced exposure to sunlight which results in reduced vitamin D production. Vitamin D is believed to be essential for lung and immune system development.

“The reasons for the rise in the prevalence of asthma are complex. As more research takes place, we might be able to confirm one or more of these theories. Then again, this research might also lead to the discovery of other factors contributing to the increased incidence of asthma,” summarizes Peters.

With inconclusive evidence as to the cause, the best advice for asthma sufferers is to work with a specialist to maintain control of the disease.
Asthma & Allergies

America’s 34 million asthmatics have a powerful new application to help manage their chronic and potentially fatal condition. Mayo Clinic and Microsoft, leaders in their respective fields of health care and technology have collaborated to develop Mayo Clinic Health Manager, a free online service application that families can use to organize health information and receive personalized information and health guidance developed by experts at Mayo Clinic.

"With Mayo Clinic Health Manager we’ve combined the technology capabilities of Microsoft with clinical leadership and health guidance from Mayo Clinic’s vast body of medical knowledge," explains David Cerino, general manager of Microsoft’s Health Solutions Group.

"My patients with asthma see me maybe twice each year," said Sidna Scheitel, MD, MPH and Mayo Clinic’s medical director. "The other 363 days of the year, patients take a more active role in managing their asthma. Mayo Clinic Health Manager provides them with information, tools and trackers that can help guide them in their self-care."

For people managing asthma, whether their own or for another family member, Mayo Clinic Health Manager offers a number of features, such as an asthma questionnaire to help asthmatics assess the severity of their disease, explore care pathways based on their disease severity, create an asthma action plan, track triggers, and identify co-morbid conditions such as acid reflux and allergies. Mayo Clinic Health Manager also helps patients with asthma record results of periodic measurements such as the monthly Asthma Control Test (ACT), monitor airway function with peak flow meter readings, maintain immunization and prescription records, and track asthma triggers longitudinally.

"Patients can then share this information with their physicians to better manage their disease," notes Dr. Scheitel. "For example, if their ACT score is perfect for six months, perhaps we can reduce their dose of inhaled steroids." she adds.

Mayo Clinic Health Manager is powered by Microsoft HealthVault, a privacy and security enhanced online platform that lets consumers store their health information obtained from providers, health plans, pharmacies and other sources; upload information from home health and fitness devices such as peak flow meters, blood glucose monitors and digital scales; share the information with caregivers, and use it with a variety of connected applications. Mayo Clinic Health Manager uses this information to deliver reminders and recommendations specific to each family member. As users enter more personal health information, Mayo Clinic Health Manager delivers more specific and customized recommendations.

Mayo Clinic Health Manager is portable, so the patient or family health manager can access information on any computer with internet access or a wireless device. "Getting their prescription lists, asthma management plan, peak flow meter readings, allergy test results and a list of triggers is most helpful in an emergency," concludes Dr. Scheitel.

Keeping Your Health Under Control

By Marlene Pitarro

"In one decade, new asthma medications and control measures have significantly improved day-to-day management of the disease." An allergist is a pediatrician or internist with at least two years of specialized training and is the best physician to diagnose and treat allergies, asthma and recurrent infections.

Find an allergist near you at www.aaaai.org

The American Academy of Allergy, Asthma & Immunology is a non-profit medical association representing 6,500 allergists, asthma specialists and other medical professionals dedicated to providing the best care for your family.
From the solution providers...

People that suffer from allergies and asthma should consider their home’s air quality as part of an overall asthma and allergy management program. Reducing exposure to allergens is commonly recommended to help reduce symptoms of asthma and allergies. Most people may not realize that a whole house air cleaner can remove the majority of particles and allergens from the home environment.

Our research has involved testing a variety of air cleaning products ranging from ‘plug-in the wall’ portable devices to whole-house, high-efficiency systems. As described in our published scientific studies, the whole-house air cleaner Trane Clean Effects performed best for minimizing exposures to pet allergens, dust, mold, smoke, respiratory viruses and other asthma triggers.

A high-efficiency air cleaner provides 100 times more clean air than the standard type of filter found in most homes and can substantially lower exposure to allergens and asthma triggers indoors.

One of the most common asthma management factors overlooked is proper inhaler dose, especially of steroid medications. For example, when a patient suffers an acute asthma attack, the first line of medication therapy generally is to begin or increase inhaled steroids. When the acute symptoms subside, the dosage could return to a lower dose of inhaled steroids. However, many patients remain on a high dose of inhaled steroids for an extended period of time. Because their health has improved, patients often don’t make a follow-up physician visit, so physicians have no opportunity to remind them to return to a maintenance dose, either. Using Mayo Clinic Health Manager’s tools for asthma management can help these patients track their asthma, which will assist them in identifying with their health care provider the lowest effective dose of inhaled steroids. This will reduce or prevent the side effects inherent in the higher doses of inhaled steroids.

All too frequently, people with Asthma and Allergies fail to confirm their sensitivities and as a consequence omit to deal adequately with their trigger factors. Trigger factor avoidance is not a substitute for medication but is a key management tool for allergic individuals.

Complete avoidance can often be difficult to achieve when dealing with indoor allergens. A proactive multifaceted approach is recommended to provide best outcomes. It is important to address all sites where allergen accumulates using a variety of methodologies. Sites of exposure may vary for different allergens, with cockroaches and mold evident in some areas and animal dander and dust mite in others.

It is becoming increasingly apparent that levels of noxious chemicals in our homes can build up, often through off-gassing. Formaldehyde, and many other volatile organic chemicals (VOCs) can be pro-inflammatory and either trigger or aggravate airway inflammation. Source control requires consideration of these factors also.

Dr. Mitchell is Board Certified by the American Board of Allergy and Immunology and a Fellow of the Royal College of Physicians in Ireland.

Clean dust and mold to reduce irritants that trigger indoor allergies. Although many people associate allergies with pollen and spring time, common household allergens from dust mites, pet dander, and mold can pose a challenge for allergy sufferers year-round. There are simple steps to reduce sinus irritants in your home.

You can reduce allergens in your household by regularly laundering bed linens in hot water. Clorox® Plus Anti-Allergen Bleach offers a fragrance-free bleach that denatures common household allergens such as mold, dust mite matter and pet dander. Also:

- Zip mattresses and pillows into washable covers.
- Clean with a vacuum using a HEPA (high efficiency particulate air) filter.
- For soft surfaces, such as cushions, bedding, carpets, and clothing, spray Clorox® Anywhere® Anti-Allergen Fabric Spray. This gentle formula helps neutralize up to 90% of common indoor allergens including those from dust mites and pet dander.
- For mold and mildew found on hard surfaces, spray the Clorox® Clean-Up® Cleaner with Bleach. Use it to clean and disinfect bathtubs, counters, showers and sinks.
Allergy Proof Your Home

BY JACKIE MCDERMOTT

It is impossible to completely allergy-proof your home, but there are ways to keep allergens and irritants at bay.

Approximately 20 million Americans suffer from asthma, while 50 million battled allergies, according to the Asthma and Allergy Foundation of America (AAFA). Indoor allergens such as dust mites and mold, as well as airborne irritants such as smoke and dust, trigger these conditions.

To maximize protection from these agitators, use precaution when shopping for “safe” products. “Terms such as ‘hypoallergenic’ are used frequently in the marketplace, but the claims are not always backed up by third party data,” warns Dr. John McKeon, CEO of Allergy Standards Limited (ASL).

This is why AAFA has partnered with ASL to offer the asthma & allergy friendly™ Certification Mark, a logo that identifies these “friendly” purchases for shoppers. ASL is a global, physician-run company that conducts independent testing to determine whether a product, such as a plush toy or vacuum, is sensitive to someone with asthma and allergies.

Sleep spaces are a dust mite haven, so wash sheets weekly in 130-degree water and use dust mite resistant bedding and mattresses.

Pet dander is also a big allergy trigger. Bathe your cat or dog frequently and don’t let pets sleep on your bed. Whether you have a pet or not, clean diligently and use a vacuum with a HEPA filter. “You need to use cleaning equipment that will remove allergens without simply redistributing them,” explains Dr. Bruce Mitchell, ASL’s medical chairman. For example, a feather duster will simply spread dust around. “Ideally, you want hard-wood flooring, but if you do have carpeting, vacuum daily.”

A recent survey* at a major international asthma and allergy conference revealed the most common tips doctors give patients to avoid allergens at home:

- 48% say to use mite-proof bedding
- 26% say to reduce clutter around the house
- 16% say to use a HEPA air filter
- 10% say to use a good vacuum cleaner

“By removing the vast majority of particles through this system, the average airborne concentration in the home is reduced, thereby lowering the exposure to harmful particles,” explains Dr. David MacIntosh, principal scientist at EH&E.

Most people spend the majority of their lives indoors, so why not keep all aspects of your home, from the air you breathe to the place you sleep, as allergen-proof as possible?

A CLEAN SWEEP
Allergen Avoidance at Home

Finding an Allergist

The AAAAI Web site hosts a “Find an Allergist/Immunologist” referral service. This referral directory lists practicing members of the AAAAI by location and specialty. The directory can be accessed in English or in Spanish. In order to become a member of the AAAAI, physicians must meet strict credentialing criteria.

The directory is located at: www.aaaai.org/physref/
Saturday, June 27, 2009
The National Mall – Tidal Basin Area, Washington, DC

To join us and walk logon to www.breathedcmetrowalk.org

3 Action Steps to Improve the Air We Breathe in the DC Metro Area

1. Carpool and use a dependable and efficient public transportation system to reduce air pollution.

2. Support advances in technology that emit lower levels of pollution like biodiesel, electric, and hybrid-powered vehicles.

3. Purchase household products and use energy-efficient appliances that do not contribute to air pollution.

In the State of the Air Report released on April 29, 2009, the American Lung Association gave the DC Metro Area an F Grade for Air Quality. For details, visit www.lungusa.org

To join us and walk logon to www.breathedcmetrowalk.org