

Asthma Disease Management Newsletter

summer 2007

Asthma Inhalers



Inhalers are hand-held devices that enable children and adults to deliver medicine directly to their lungs. Knowing what types of inhalers are available and how to use them can help you better manage

your asthma. A variety of inhalers are available. Two common types are metered-dose inhalers and dry powder inhalers.

Metered-dose inhalers. These inhalers use a chemical propellant to push the medication out of the inhaler. They include a pressurized canister with measured doses of medication inside. Squeezing the top of the canister converts the medication into a fine mist. Some metered-dose inhalers are breath actuated and do not require you to squeeze the canister. You place your lips on or near the inhaler's mouthpiece to inhale the mist.

Using an inhaler with a pressurized canister calls for coordinating the squeezing of the canister and inhaling the medication. This may be easier to do with a spacer—a short tube that attaches to the inhaler. The spacer acts as a holding chamber that keeps the medication from escaping into the air. Releasing the medication into the chamber gives you time to inhale more slowly, increasing the amount of medicine that reaches your lungs.

Dry powder inhalers. These inhalers do not use a chemical propellant to push the medication out of the inhaler. Dry powder inhalers require you to place your lips on the mouthpiece and inhale more rapidly than you would with a metered-dose inhaler. Some people find dry powder inhalers easier to use than metered-dose inhalers because hand-lung coordination is not required. Spacers cannot be used with dry powder inhalers.

Source: Mayoclinic.com

Both quick-relief and long-term control asthma medicines can be given by dry powder inhalers. They include: Advair Diskus, Aerobid, Ventolin Rotacap, Intal Spinhaler, Foradil Aerolizer, Flovent Diskhaler, Flovent Diskus, Flovent Rotadisk, Maxair Autohaler, Pulmicort Turbuhaler and Serevent Diskus.

Proper Use of Inhalers

Inhalers allow people with asthma to lead active lives without fear of an attack. Fast acting bronchodilators can relieve symptoms quickly, but they are no substitute for the long-term controller medications that keep your asthma under control. You may find it difficult to take asthma controller medications regularly, particularly corticosteroids but if you don't take them regularly, as prescribed, you may have problems later on.

In addition to taking the controller medications you are prescribed, it is important to use your inhaler correctly so the medication reaches your lungs. Follow the instructions for your inhaler or ask a doctor, nurse or pharmacist for a demonstration. Then practice at home in front of a mirror.

How to clean your inhaler

If you use your metered-dose inhaler regularly, clean it after each use or at least daily. To clean the inhaler follow these steps:

- Remove the metal cartridge
- Rinse the applicator under running water
- Rinse inside the mouthpiece where the medication is dispensed
- Air-dry the inhaler
- Once it's dry, re-insert the cartridge
- Keep the cap on the inhaler when not in use



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Asthma Clinical Research Centers

The Asthma Clinical Research Centers (ACRC) network is an American Lung Association-sponsored research program seeking to develop large clinical trials that will provide information important to the care of people who have asthma. The network is the largest of its kind conducting clinical trials in a large number of patients. For information on these trials visit the American Lung Association's website at www.lungusa.org.

The National Institute of Health sponsors many of these trials. The trials cover topics such as patient education and the impact of education on outcomes. A better understanding of education and patient expectations can lead to improvements in asthma treatment.

One trial addresses the impact of treating asthma and acid reflux disease simultaneously. Recent studies have demonstrated that asthma and acid reflux disease often co-exist, and this co-existence is more frequent than would happen by chance. Studies that characterize associations between these conditions, and the development of interventions, will positively impact outcomes. The study is testing the idea that treating acid reflux disease will reduce asthma attacks.

You can learn more about asthma studies by visiting the National Institute of Health's web site and selecting this link: <http://clinicaltrials.gov/ct/gui/action/SearchAction?term=Asthma+in+Children>.

Sources: www.lungusa.org & <http://clinicaltrials.gov/ct/gui/action/SearchAction?term=Asthma+in+Children>.

Asthma Early Warning Signals



You and your child can become experts in spotting the early signals of an asthma attack. Every child with asthma has a built-in early warning system that signals when symptoms are on the way. These signals can be seen, heard, and felt. Every child has his or her own pattern of signals according to the American Lung Association. Both parents and children can make keen observation a habit and learn how to recognize these patterns.

Source: *American Lung Association*

What to Look For:

- Anxious look
- Cough, especially at night
- Unusual paleness or sweating
- Flared nostrils when the child tries to get some air
- Pursed lips breathing
- Fast breathing
- Vomiting
- Hunched-over body posture
- Restlessness during sleep
- Unexplained fatigue

What to Listen For:

- Put your ear to the child's back and your hand on his or her chest. You will feel the chest go up as the child inhales, drawing in air, and you will feel the chest go down as the child exhales.
- Listen for squeaking or any unusual noises. They may mean asthma, bronchitis, or a chest infection. Only a doctor can tell for sure. Regard any noisy breathing as a signal that help may be necessary.

What to Do Immediately:

- Reassure the child by your tone of voice, your attitude of being able to manage and your confidence.
- If the doctor has recommended a medicine when signals appear, use it. Don't give the child a special dose unless the doctor said to.
- Encourage normal fluid intake. Excessive fluid intake may be counter productive.

Single Ingredient Albuterol Metered Dose Inhalers and the Ozone Layer

On April 4, 2005, the Food and Drug Administration (FDA) issued a final rule which states that, as of December 31, 2008, the production and sale of single ingredient albuterol metered-dose inhalers (MDIs) must stop. Single ingredient albuterol MDIs contain an ingredient called CFC, or chlorofluorocarbon. CFC has been shown to be a significant factor in the depletion of the ozone layer, letting in a higher level of ultraviolet light and radiation, thereby increasing incidences of skin cancer, cataracts, and other significant environmental damage.

You may have noticed that generic albuterol MDIs are being phased-out. Your physician may have changed your albuterol rescue inhaler to a different

medication or your pharmacist may have switched you to a brand name albuterol MDI. Proventil HFA and Ventolin HFA MDIs are currently available. HFA, or hydrofluoroalkane, is the ingredient that has replaced CFC in these brand name albuterol inhalers, making them FDA approved alternatives. HFA has no known ozone-depleting substances.

As the December 2008 date nears, there will be a diminishing supply of CFC MDIs, which will make it more difficult to get those prescriptions filled. Talk to your physician soon regarding a change and a plan a move to an alternative HFA MDI. This will allow you and your physician time to find the right inhaler for your condition.

Source: www.fda.gov

Five Emergency Signs for Asthmatics

Any one of the five signs noted below means medical care is urgently needed. These five signs usually occur when wheezing, coughing, or shortness of breath gets worse, even after a rescue medication has been given time to work. Most inhaled bronchodilator medications produce an effect within 5 to 10 minutes. Discuss the time your medicines take to work with your child's doctor.

- Chest and neck are pulled or sucked in with each breath.
- Struggling to breathe.

- Child has trouble walking or talking.
- Peak flow rate gets lower, or does not improve after treatment with bronchodilators, or drops to 50 percent or less of your child's personal best.
- Lips or fingernails are gray or blue. If this happens, get to the doctor or emergency room right away.

Call your doctor or get emergency medical care if your child exhibits any of these signs.

Source: www.lungusa.org

Secondhand Smoke – A “Firsthand” Problem



Exposure to smoke in the environment is called secondhand smoke. Secondhand smoke is a mixture of over 4,000 chemicals, 40 of which cause cancer in humans. Smoke from the end of a burning cigarette or smoke exhaled by a person who is smoking contains all of these chemicals.

Anyone breathing secondhand smoke may experience headaches, coughing, runny nose and eye irritation. Asthma patients are among those at risk for severe problems. Secondhand smoke is a strong respiratory irritant and can trigger an asthma attack. Studies have shown that children with asthma who are exposed to secondhand smoke require more asthma medications, have more emergency room visits, and experience lower lung function.

You can best protect yourself and your child from secondhand smoke by taking these steps:

- Don't smoke in your home or car.
- Don't allow guests to smoke in your home or car.
- Sit in non-smoking sections in restaurants, airports, etc.
- Support businesses that are smoke-free.
- If you smoke, talk to your doctor or your dedicated disease management nurse about quitting. They can help you find a program that will work for you. Over the counter quit smoking medicines can also increase your chance of successfully quitting.

Sources: **U.S. Department of Health, Education, and Welfare**
www.epa.gov/smokefree/

Role of the Primary Care Physician

Years ago, many people had one doctor for most of their family's healthcare needs. This doctor treated the whole family and had extensive knowledge of the physical and psychosocial issues that affected each family member's health. Often referred to as the "family doctor," these general practitioners provided care for the family for decades. This doctor treated colds, backaches, set broken arms, and also delivered babies.

Today, a primary care manager or PCM can be a family practice physician, internal medicine physician, general practitioner or pediatrician who acts as an individual's gatekeeper to the medical system. They still get involved in most aspects of patient care, provide assessments, and treat many symptoms and ailments. Primary



care managers see patients regularly to keep close tabs on their health and their use of specialty care. Sometimes treatment involves referring the patient to a specialist or a diagnostic facility for tests, if the tests are not available at the physician's office. Like their predecessors, primary care managers play an integral role in helping patients live healthy lives.

Source: NortonHealthcare.com

Health Information Audio Library

Available 24 hours a day,

7 days a week at: 877-217-7946

Health and Wellness web site:

www.humana-military.com

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