

## Physical Controls

Sticky traps for insects and snap-traps for rodents are safe and good tools for catching the occasional invader. Be sure they are placed correctly for maximum benefit. Roaches and rodents run along the wall in concealed spaces, so make sure the traps are flush with the wall. Snap traps should snap toward the wall.



## Chemical Controls: Less-Risky Pesticides

After using all of the above methods, you may need to consider using a pesticide. Try to select products that limit human exposures to the product. Aerosols, liquid sprays, mothballs or "bug bombs" all pose *more* risk of chemical exposure and cause lung irritation. Instead, look for pesticides in tamper-resistant bait stations or a "gel" formula. Boric acid dust can be used, if *carefully* puffed gently and in small amounts *behind* wall voids and socket covers to eliminate insects hiding behind these areas. Avoid spreading any kind of pesticidal dust in and around the rooms of the home.



## Eliminating pests safely will help reduce the number one asthma trigger in the home!



## Breathe Safely



# Safety First

**ALWAYS** read the entire label on any pesticide product **BEFORE** you buy and use them in your home. Ask yourself: Does this product control the pest I have? Can I use this product without exposing myself and/or my family to the pesticide? If pesticides are stored in the home, store in a **locked** cabinet at least 4 feet up and out of the reach of children. **NEVER** buy pesticides in unmarked containers or that do not have an EPA registration number on the container. These products are **illegal** and potentially very dangerous to your family.



This fact sheet adapted from the original by Safer Pest Control Project  
[www.spcpweb.org](http://www.spcpweb.org)

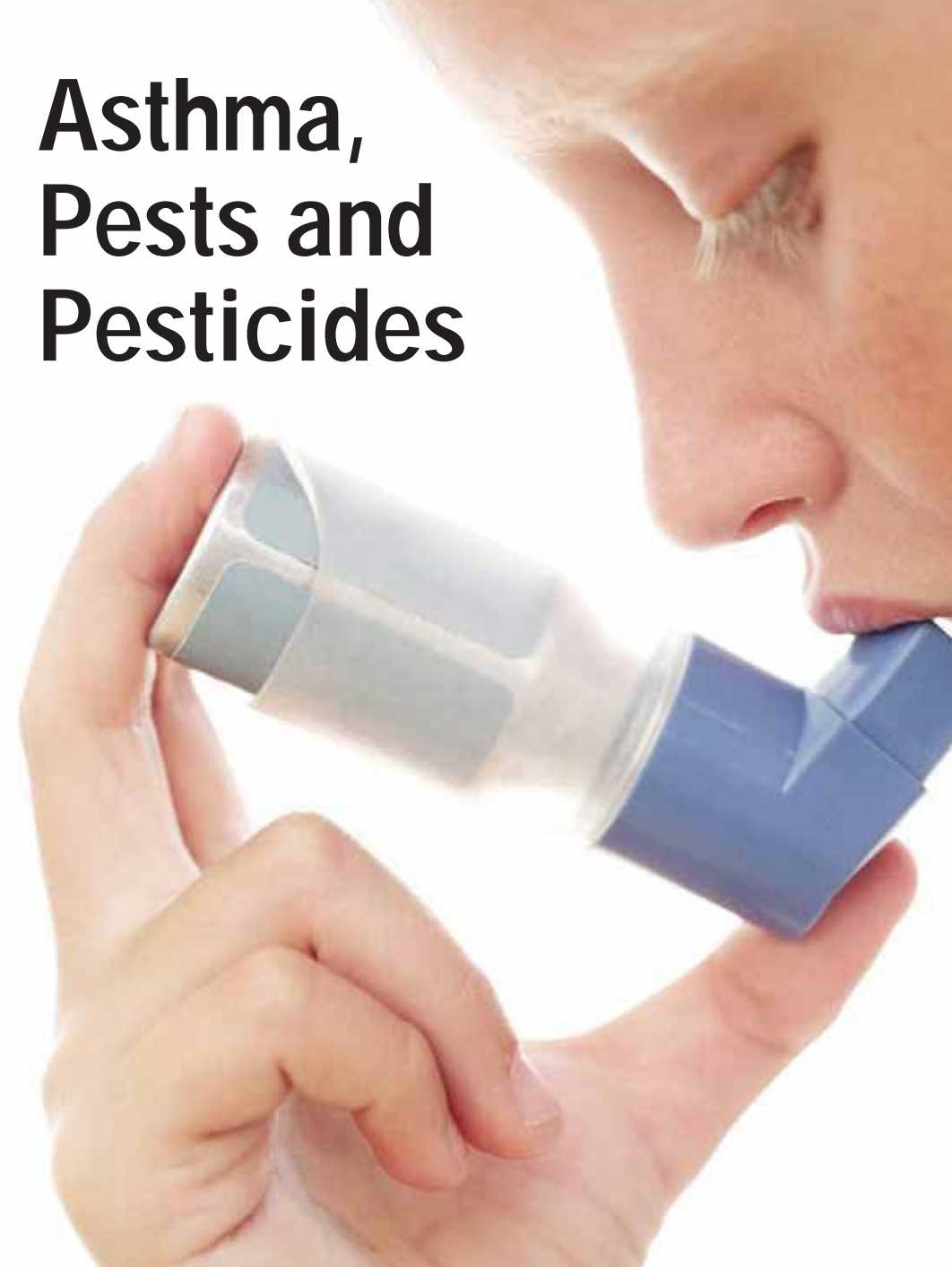
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*The PA IPM Program:  
Empowering individuals and communities to safely manage pests through education and training.  
Providing education and training for: Healthy Homes, Healthy Schools, Healthy Communities,  
and Healthy People.*

# Asthma, Pests and Pesticides



The Pennsylvania Integrated Pest Management Program  
Philadelphia School & Community IPM Partnership



## Asthma

Asthma is a long-term condition causing inflammation of the lung's airways. Symptoms of asthma include wheezing, coughing, feeling of tightness in the chest, difficulty breathing, and itching neck, throat and ears. While the causes of asthma are not fully understood, a combination of genetic susceptibility and environmental factors are involved. Although we cannot control our genetic make-up, we *can* help prevent asthma attacks by paying attention to the environmental conditions that irritate lungs and set off an attack.

### Why be Concerned?

As of 2009, approximately 20 million Americans have been diagnosed with asthma, and it is the most common chronic childhood disease – afflicting over 6 million children nationally and over 100,000 children in Southeastern Pennsylvania. In Philadelphia, the asthma rates among school-aged children are more than twice the rates for Pennsylvania and the nation as a whole. Asthma is the leading cause of school absences. Parents, in turn, must miss work to stay home with their sick children. In Philadelphia, 16,000 children visit emergency rooms each year. African-American and Hispanic/Latino children have asthma rates 2-3 times that of white or Asian children. A bad asthma attack can be fatal.



### Asthma Triggers

Asthma attacks are usually started by exposure to certain substances called *triggers*. Triggers are either allergens or lung irritants. Airborne allergens are substances such as pollen, animal dander, cigarette smoke, aerosols, or mold that cause an allergic reaction. Chemical lung irritants include pesticides, perfumes, air fresheners and household and industrial cleaning products. Repeated exposure to allergens or irritants, such as cockroach and/or mouse allergens, can “sensitize” people - making them more likely to experience allergic reactions. Awareness of asthma triggers can help you take steps to reduce them, and thereby preventing asthma symptoms or attacks.



## Pests Trigger Asthma

Pests are unwanted creatures that invade our homes. Once they have gotten inside, some of these pests, notably, mice, rats and cockroaches, can contribute to an asthma attack. In fact, research is going on to determine whether or not these pests can actually cause asthma to develop.



The **single major factor** contributing to asthma in urban-dwelling children in the Northeastern US has been found to be **exposure to cockroach allergens**. Cockroaches shed skins, leave behind feces, and when cockroaches are dead, their bodies turn into dust – all things that can trigger an asthma attack. To make matters worse, when pesticide sprays or “bug bombs” are used to combat roaches, they can also irritate lungs and potentially cause an attack. Rodents, such as rats and mice, can trigger asthma as well. These rodents shed hair and produce waste products that can trigger attacks if someone with asthma breathes them in.

### Pesticides and Human Health

Pesticides are substances designed to kill, control or repel pests, including insects, rodents, weeds, and molds. The US Environmental Protection Agency lists pesticides as one of four environmental pollutants that may influence the induction and exacerbation of asthma symptoms. Pesticides do this by irritating the lungs as they are breathed in. In laboratory tests with animals, commonly used pesticides have been linked to cancer, birth defects, reproductive disorders, and neurological, kidney and liver damage. To be safe, it is important to limit children's exposures to toxins of all kinds, including pesticides.



## What Can You Do to Safely Control Pests?

Integrated Pest Management (IPM) is an approach to pest control that focuses on *eliminating the root causes of pest problems* and *using the safest, most effective methods available* to get rid of active infestations. IPM prevents pest by using a combination of physical and chemical methods. Because **IPM focuses on prevention**, it is more effective than a reactive, spray-based approach to pest control, and it reduces the need to use pesticides.

### Pest Prevention

These methods are at the heart of an IPM program:

- **Keeping watch:** Certain areas of the house are more susceptible to pests such as the kitchen, basement or bathroom. Small sticky traps or glue boards can be used in these areas as an “early warning” system. The goal is to quickly find any pests and how they are getting in, *before* they become a big problem.
- **Prevent pest access:** Caulk the cracks and crevices pests may use to move or hide in. For larger holes, use stainless steel or copper mesh to plug the holes, and then use a silicone caulk to seal it. Pay special attention to areas where pipes and wires come in through the wall. Make sure to use window screens and that they are in good repair.
- **Prevent shelter:** Reduce clutter – get rid of the things you do not need such as old clothes, newspapers, magazines and cardboard boxes where pests can easily hide.
- **Prevent food sources:** Store food in plastic or glass containers with tight-fitting lids to prevent pests from eating it. Keep dirty dishes in soapy water so that pests cannot eat the scraps. Clean thoroughly, with particular attention to the floor under the refrigerator, stove/oven and other places where food crumbs and spills may be collecting. Remove and store pet foods in pest-proof containers at night. Use a trash can with a tight-fitting lid and empty regularly.
- **Prevent water sources:** Fix any water leaks, wipe up spills and remove pet's water dishes at night.

