

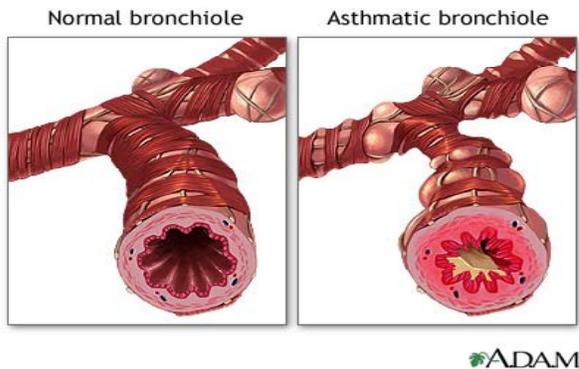
Pesticides and Asthma

For home

What is asthma?

Asthma is a chronic condition that obstructs airflow, but the obstruction is reversible. It results in difficulty in breathing due to:

- Inflammation (swelling)
- Mucus in the airways
- Tightening of muscles around the airways



No one knows what causes asthma but we do know genetics and environment play a role.

How common is asthma?

- About 8.1% of Utah adults aged 18 and older currently have asthma (Source: BRFSS, 2007)
- About 7.8% of Utah children aged 17 and younger currently have asthma (Source: BRFSS, 2007)

Asthma Triggers

An asthma trigger is something that can cause an individual to have an asthma attack. Examples include:

- Allergens (pollen, animals, dust, mold)
- Irritants (cold air, chemicals and sprays, tobacco smoke)
- Upper respiratory infection

What is a pesticide?

- A pesticide is a substance used to get rid of or control a pest.¹
- A pest can be a harmful plant, insect, fungus, animal or microorganism.¹

Each year in the US, about 2 billion pounds of licensed pesticides are used. If used right, pesticides can have many benefits. However, used incorrectly, pesticides may cause health problems. In 2001, more than 20,000 cases of acute pesticide poisonings were identified at poison control centers across the country.¹

What are the possible respiratory health effects from pesticide exposure?

- Asthma^{2,3,4}
- Wheeze⁵ (*A whistling sound when breathing*)
- Chronic bronchitis⁶ (*A swelling of the main airways to the lungs*)

Although we do not know what causes asthma, some studies have found an association between asthma and pesticide exposure.

Asthma triggers can include irritants like chemicals and sprays.

What factors can play role in how a person responds to pesticide exposure?

- Health conditions
- Age
- Personal behaviors (i.e., hygiene)
- Size of the person (i.e., body weight)⁷
- Length and frequency of exposure
- The pesticide present

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“...One of the greatest causes of pesticide exposure to humans is the use of pesticides in and around the home.” (Environmental Protection Agency)

Pest Control Options

You have options when it comes to pest control.

Options include:

- Pest Prevention
 - » Prevent the pest from coming into your home or garden by removing what they need to survive.
- Non-chemical pest controls
 - » Non-chemical pest controls include biological treatments (using the pests' natural enemy for; example, a cat) and manual treatments (setting traps).
- Chemical pesticides⁸

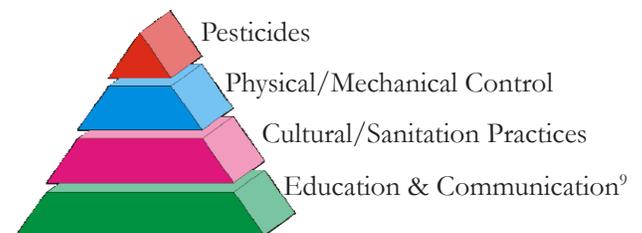
Using Pesticides Safely

- Choose the right pesticide
- Read and follow the label
- Determine the amount to buy and use
- Use the pesticide safely and correctly
 - » Allow proper ventilation
- Store and dispose of pesticides correctly⁸
 - » Keep pesticides in the original labeled containers

Integrated Pest Management (IPM)

- Don't attract pests
- Keep them out
- Get rid of them with the safest, most effective method(s)⁹

How to practice IPM



IPM Ideas for Your Home

- Keep it dry
 - » Fix leaks.
- Put food away
 - » Store food in closed containers. Take out the trash often.
- Clean up hiding places for pests
 - » Caulk cracks. Wash pets often.
- Don't let pests in
 - » Install screens. Close doors.⁸

Where Can I Find More Information?

- www.npic.orst.edu
- www.utahpests.usu.edu/ipm
- www.epa.gov
- www.cdc.gov



More information on controlling pests and using pesticides safely is available in the EPA's *Citizen's Guide to Pest Control and Pesticide Safety*. Available at www.epa.gov/oppfead1/Publications/Cit_Guide/citguide.pdf

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4. Salameh PR, Baldi I, Brochard P, Raheison C, Saleh BA, Salamon R. Respiratory symptoms in children and exposure to pesticides. *Eur Respir J* 2003; 22:507-512.

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6. Hoppin JA, Valcin M, Henneberger PK, Kullman GJ, Umbach DM, London SJ, Alavanja MCR, Sandler DP. Pesticide use and chronic bronchitis among farmers in the agricultural health study. *Am J Ind Med* 2007; 50(12):969-979.

7. New York State Department of Health. (2008) Pesticide Poisoning Registry – Recognizing and Reporting Pesticide Related Illnesses and Injuries. http://www.health.state.ny.us/environmental/workplace/pesticide_poisoning_registry/pesticide_poisoning_registry_presentation.htm

8. Environmental Protection Agency. Citizen's Guide to Pest Control and Pesticide Safety. (2005). http://www.epa.gov/oppfead1/Publications/Cit_Guide/citguide.pdf

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