

# Asthma in Schools



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Some areas of your school may be off-limits without permission from your teacher or principal, and some projects should be done with at least one partner. Check with your teacher before beginning any activities or projects related to this fact sheet.

## Why It Matters

In the United States, about 4.8 million children under the age of 18 are estimated to have asthma, a disease of the lungs. That is one in every 15 kids!

Asthma is a lung disease that causes the airways to tighten, making it hard to breathe. It's become more common over the last several years, and health officials now say the United States is experiencing an asthma epidemic. People of all ages get asthma, but kids get it most often. Doctors still don't understand what causes asthma, although they do know that people inherit a tendency to get it, and environmental factors trigger it.

When you have asthma, your airways are too sensitive to certain triggers. They respond to these triggers by swelling and filling with mucus. This makes them narrower, so it's hard for air to reach your lungs. The muscles in your airways also contract, making the passages even smaller. During an attack, you might start coughing or wheezing (making a whistling sound as you breathe) or feel that you just can't catch your breath.

**What causes asthma attacks?** Many things act as triggers, and different people respond to different ones. Some people get asthma attacks from foods they are allergic to, or after exercising. Others get attacks when they have colds or infections, or when the weather changes.

But most asthma attacks are brought on by substances in the air. Dust or pollen can cause asthma attacks. So can hair from animals like dogs or cats. Roaches are a big problem because their waste and saliva are two of the most common triggers. Mold is also responsible for many asthma attacks. Smoke — from burning wood, coal, gas or cigarettes — is another common trigger. So are smog and diesel exhaust. Fumes from pesticides, cleaning products and paint can cause attacks, too.

## What Kids Can Do

Asthma is very common, so even if you don't have it yourself, you probably know people who do. If you have asthma, you need to work with your family and your doctor to control it and to eliminate asthma triggers. Make sure your teachers, the school nurse and school administrators know about your asthma, and about any medications you take for it.

This fact sheet can't tell you specific steps to follow to control your asthma. Those depend on your situation and your doctor's recommendations. But school officials can take steps to make school a safer place for you by removing asthma triggers and improving air quality. You should never have to miss school because of your asthma.

The next section lists some important steps your school should follow. Remember that in many cases, kids can help too — by keeping clean, reporting leaks and other actions. For more information, check out our fact sheet on indoor air quality in schools. The Environmental Protection Agency's IAQ Tools for Schools program at <http://www.epa.gov/iaq/schools/> offers detailed,

practical advice for schools on improving indoor air quality, with a special focus on asthma. The American Lung Association also has reliable information on asthma. Visit <http://www.lungusa.org> or call them at 1-800-LUNGUSA.

## What Your School Can Do

Although these steps are extra important for kids with asthma, they'll help the entire school. Everyone benefits from cleaner air.

- **Ventilate well:** Good ventilation keeps air moving and helps prevent pollution from building up. Everyone in the school needs to be involved in improving ventilation. Sometimes it's as simple as opening a window or clearing the space in front of a vent. At other times, it means repairing the school's heating or air conditioning system.
- **Keep the school dry:** Mold is one of the worst asthma triggers. Dampness and standing water encourage mold to grow, so it's important to keep your school as dry as possible. Your school should repair leaks immediately.
- **Don't keep pets in classrooms:** Animal hair and body fluids cause many asthma attacks. Many schools keep pets, but with so many kids affected by asthma, it is no longer a good idea to have pets in classrooms.
- **Prevent roaches and other pests from entering:** Roaches and rodents cause a lot of asthma attacks, so it's essential to keep them out of your school. The best way to do this is to keep your school clean. This is a job for everyone — students, teachers and staff. Cracks and holes need to be sealed, to keep pests from entering. If pests do get in, your school shouldn't try to fight them by regularly spraying pesticides, which contain many dangerous chemicals that can themselves trigger asthma attacks. There are safer methods, such as traps or simply scrubbing with soapy water. These non-chemical methods are one element of a much safer approach to pest control called integrated pest management or IPM. The Environmental Protection

Agency has detailed information on <http://www.epa.gov/pesticides/ipm/>.

- **Enforce no-smoking rules:** Your school probably has rules against smoking. Breaking them affects not only your own health, but the health of others as well. Imagine if someone sneaks a cigarette in the bathroom, a room everybody needs to use. When a person with asthma enters, the tobacco smoke could trigger an asthma attack — even if the smoker has left. Or sometimes tobacco smoke can be carried through the ventilation system to other rooms. Tobacco smoke is one of the worst asthma triggers, so it's really important to keep it away from all areas of your school.
- **Don't use products that have harsh odors or fumes:** Some paints and cleaning products release fumes that can trigger asthma attacks. But many of them are available in safer varieties that are less dangerous to breathe. Areas where paints and cleaners are used should always be well ventilated. If school officials decide they need to use chemical pesticides, they should choose the least harmful varieties and ventilate well.
- **Control dust:** Dust can trigger asthma attacks, so it's important to reduce the amount in your school. Play your part by keeping your school neat — it's hard to remove dust from cluttered areas. Cleaning staff should use damp mops — never dry — to dust. If your school has carpets, they should be vacuumed every day, using a vacuum with a HEPA filter. (A HEPA filter is able to trap very fine particles.)

## For More Information

Children's Med. Ctr. of U. Va's asthma tutorial website at <http://www.people.virginia.edu/~smb4v/tutorials/asthma/asthma1.html>

Jill's Asthma Story from KidsHealth at [http://www.kidshealth.org/kid/health\\_problems/allergy/asthma.html](http://www.kidshealth.org/kid/health_problems/allergy/asthma.html)

Check out the **Project Ideas** fact sheet for examples of activities that you can do in your school. All of these projects can go toward earning the Green Flag Award at your school.

The Green Squad is a project of the Natural Resources Defense Council, in collaboration with the Healthy Schools Network. <http://www.nrdc.org/greensquad/> © Natural Resources Defense Council

