

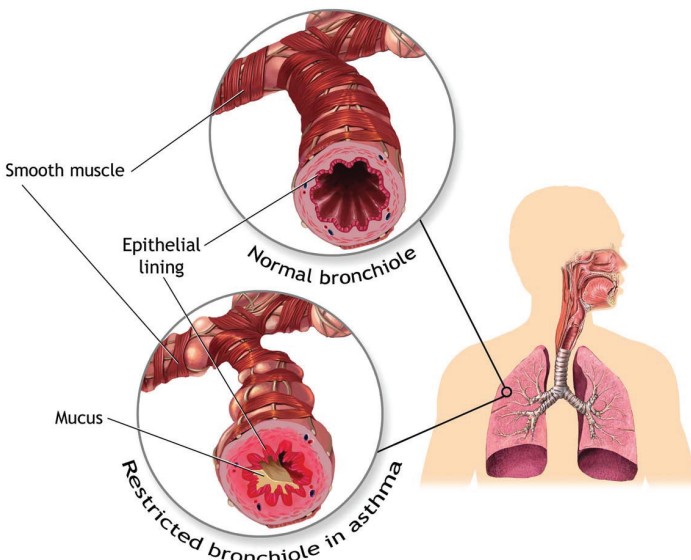
PEST PRESS

SAFE HANDLING OF PESTS IN SCHOOLS

Managing Asthma in Schools with IPM and Other Healthy Schools Activities

How Asthma Affects School Children

Asthma is a major health issue for school-aged children in the U.S. It is the number one cause of absenteeism. Asthma is a chronic disease that causes inflammation of a person's airways when they are exposed to certain triggers.⁴ Other symptoms of asthma include wheezing, chest tightness, shortness of breath, and coughing.⁶ The Centers for Disease Control and Prevention estimates that asthma affects approximately 7 million children in the United States.¹ In Indiana, 9.5% of children currently have asthma.⁵ The Indiana State Department of Health reports that 1 in 2 children with the disease missed at least 1 day of school in the past 12 months due to asthma.⁵



Common Asthma Triggers

Currently, asthma is a disease that cannot be cured but can be controlled by managing the things that serve as triggers for an asthma attack. Not all triggers affect asthmatics the same so it is up to the individual to find out which triggers are the most important to avoid. However it is good practice for schools to work to minimize the most common triggers.

According to the Environmental Protection Agency, an asthma trigger is anything that can cause asthma symptoms, an asthma attack, or make asthma worse.³

Common asthma triggers found in schools include:

- Pests: Cockroaches and Mice
- Dust Mites
- Mold
- Dust
- Pesticides
- Harsh Chemical Cleaners
- Artificial Air Fresheners
- Animal Dander
- School Supplies
- Vehicle Exhaust
- Outdoor Air Pollutants

Eliminating the Source of the Triggers

An Integrated Pest Management (IPM) program is a great way to reduce many of the common asthma triggers in a school building. According to the National Institute of Environmental Health, minimizing exposure to cockroach allergens could be the most important activity to reduce the incidence of asthma for inner-city children.⁸ After implementing an IPM program, school districts in North Carolina found that they did not have any detectable cockroach infestations and much lower cockroach allergen levels than the school districts that chose to keep a conventional pest management program.⁷



Strategies to minimize and eliminate asthma triggers include:

- Use an IPM program to manage cockroach and rodent problems. This program includes monitoring, proper identification, improved sanitation and maintenance, exclusion, and if necessary the safe use of pesticides that minimizes exposure to building occupants.
- For dust mites remove upholstered furniture from classrooms. Vacuum rugs and carpets frequently with a HEPA vacuum. Minimize the number of stuffed toys in the classroom.
- To prevent mold fix leaks, thoroughly dry out wet areas and remove damaged materials. Keep humidity level between 40% - 50%.
- To minimize dust frequently clean with a HEPA filter vacuum, microfiber cloths or a wet cloth. Use regularly cleaned walk off mats at all entrances.
- Institute a “Green Cleaning” program that utilizes third party certified products such as EcoLogo and Green Seal. Limit the use of disinfectant wipes and cleaning products with artificial fragrances. With conventional cleaners follow the instructions on the product label and allow adequate air flow so that any fumes can leave the building quickly.
- Adopt a policy banning the use of chemical air fresheners in the building. Choose unscented supplies.
- Institute a “No Furry or Feathered Pest” policy.
- Limit the use of chalk, dry erase markers, scented markers and other art or science supplies with strong odors.
- Adopt and enforce a “No Idling” policy for cars and buses waiting outside school.
- Change air filters in your HVAC system and do other maintenance as recommended. Before planning outside activities, check the air quality index for your area (www.arinow.gov)



Learn more at
www.ikecoalition.org



References

1. Centers for Disease Control and Prevention's National Asthma Control Program. (2011). Asthma in Indiana. Retrieved from https://www.cdc.gov/national-asthma-control-program/media/Asthma_in_IN.pdf.
2. Centers for Disease Control and Prevention's National surveillance for asthma. Surveillance Summaries, October 19, 2007. MMWR 2007;56(No. SS-8). Illustration 2007 A.D.A.M., Inc., Atlanta, GA. Retrieved from <https://stacks.cdc.gov/view/cdc/6894>.
3. Environmental Protection Agency. (2013). Asthma Triggers: Gain Control. Retrieved from https://www.epa.gov/sites/default/files/2013-08/documents/ll_asthma_brochure.pdf.
4. Indiana State Department of Health. (2013). Asthma. Retrieved from https://www.in.gov/health/cdpc/files/2021_GeneralAsthma_FactSheet.pdf.
5. Indiana State Department of Health. The Impact of Asthma in Indiana. Retrieved from <https://www.in.gov/health/cdpc/files/The-Impact-of-Asthma-in-Indiana-Infographic-PDF.pdf>.
6. Indiana State Department of Health's Chronic Respiratory Disease Program and Indiana Joint Asthma Coalition. (2012). The Indiana Plan to Improve Asthma Outcomes. Retrieved from https://www.in.gov/health/cdpc/files/State_Plan_Updated_6_27_12.pdf.
7. Nalyanya, G., Gore, J.C., Linker, H.M., and Schal, C. (2009). German Cockroach Allergen Levels in North Carolina Schools: Comparison of Integrated Pest Management and Conventional Cockroach Control. *Journal of Medical Entomology* 46(3), 420-427. DOI: <http://dx.doi.org/10.1603/033.046.0302>.
8. National Institute of Environmental Sciences. Asthma and Its Environmental Triggers. (2006) Retrieved from: https://www.niehs.nih.gov/sites/default/files/health/materials/asthma_and_its_environmental_triggers_508_1.pdf.