TAKING CONTROL OF ASTHMA

SCHOOL WALKTHROUGH GUIDEBOOK

A healthier environment for students and staff.

WISCONSIN ASTHMA COALITION
Children’s Health Alliance of Wisconsin
The Wisconsin Asthma Coalition (WAC) invites your school to join us as we take control of asthma.

The purpose of the WAC school walkthrough program is to increase school attendance by reducing exposure to environmental asthma triggers found within schools.

This guidebook provides comprehensive do-it-yourself instructions to identify asthma triggers in the school environment and offers low and no-cost solutions to make your school more asthma friendly.

A special thank you to Kristen Grimes, MCHES, MAOM and Wisconsin HealthCorps members, Allie Ceranske, Kristen Lunde and Meng Xiong for creating the School Walkthrough Guidebook.
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WISCONSIN ASTHMA COALITION HISTORY

The WAC is an initiative of Children’s Health Alliance of Wisconsin, whose mission is to ensure children are healthy, safe and able to thrive. As Wisconsin’s voice for children’s health, the Alliance raises awareness, mobilizes leaders, impacts public health and implements programs proven to work. The WAC is working to take control of asthma by fostering partnerships to improve asthma management, enhancing the quality of life, reducing disparities and preventing asthma-related deaths.

SCHOOL WALKTHROUGH HISTORY

The WAC school walkthrough program is part of the Wisconsin Asthma Plan 2015-2020 (www.chawisconsin.org/wac), a statewide guide to address asthma in Wisconsin. Using the National Asthma Education and Prevention Program Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma (NIH asthma guidelines), the plan focuses on the four components of care:

1) Routine health care
2) Pharmaceutical care
3) Education
4) Environment

The school walkthrough program is an objective in the environment section of the plan.

Become a member of the WAC today for free. Complete a membership agreement at: chawisconsin.org/wac/
WHAT IS ASTHMA?

ASTHMA AT A GLANCE

Asthma is a chronic lung disease that cannot be cured, but can be controlled. While we do not know what causes each individual to have asthma, we do know there are four components to effective asthma care. These include routine health care visits, appropriate medication use, patient education and control of environmental triggers.

People with asthma have inflamed, tightened and mucous filled airways. An asthma attack (asthma exacerbation) occurs when the airways are irritated by triggers such as irritants, allergens, stress, cold temperatures and exercise. Asthma symptoms include wheezing, chest tightness, shortness of breath and coughing. Asthmatics experiencing symptoms should follow their asthma action plans or talk to their doctor.
CAUSE FOR CONCERN

Environmental asthma triggers may negatively affect students with asthma and significantly impact student performance. Poor indoor air quality, as well as the increase in absenteeism due to asthma, can be linked to a decrease in test scores and lower grades. The WAC school walkthrough program aims to increase student attendance by creating a healthier environment for students to learn and thrive.

Did you know?

- Uncontrolled asthma affects student performance.
- Nationally, 14 million school days are missed each year because of asthma exacerbations.
- In Wisconsin, asthma affects one in thirteen children, translating to about 100,000 children.
- Children spend more than 1,000 hours a year in school, making asthma management in schools imperative to student health and success.
WHAT DOES A SCHOOL WALKTHROUGH ACCOMPLISH?

PROGRAM BASICS

The goal of the WAC school walkthrough program is to increase school attendance by reducing exposure to environmental asthma triggers found within school buildings. This is accomplished by:

- Identifying asthma triggers in the school environment.
- Providing low and no-cost recommendations to eliminate and/or reduce environmental asthma triggers.
- Increasing knowledge and awareness regarding management of environmental asthma triggers.

The school walkthrough program focuses on five main asthma triggers typically found in schools, as defined by the U.S. Environmental Protection Agency (EPA).

- Classroom pets
- Pests and vermin
- Dust and dust mites
- Mold, mildew and moisture
- Odors

PROGRAM LOGISTICS

The WAC school walkthrough program is targeted to elementary schools as students spend the majority of their day in a single classroom, but the program can be used with any K-12 school. A typical walkthrough takes one to two hours to complete. This time is spent assessing rooms and areas, and recording identified asthma triggers.
“Our partnership with the WAC has made a significant impact on the lives of children living with asthma in our community. Through the WAC’s support we have been able to implement the school walkthrough program in our schools.”

- Kathleen Kelly Shanovich, RN, American Family Children’s Hospital Asthma

“The school walkthrough program is easy and requires minimal time and resources.”

- Roxanne Hemmerling, School Nurse, Beloit-Turner School District

“I completed the WAC school walkthrough program with the maintenance person in each of our elementary schools. The program resulted in an increased ability to identify asthma triggers and the strategies to decrease them.”

- Valerie Hon, District School Nurse, Portage School District
A walkthrough can be completed in three easy steps outlined below!

1) TAKE ACTION

Complete a school walkthrough
1. Become familiar with the five categories of asthma triggers in schools.
2. Use the school walkthrough checklist to inspect individual classrooms.

2) TELL OTHERS

Share the findings
1. Record findings on the trigger checklist.
2. Share the comprehensive findings report with school administrators and/or staff.

3) MAKE CHANGE

Create a healthier school environment
1. Prioritize and implement recommendations to remove or reduce environmental asthma triggers.
2. Set date for next walkthrough (walkthroughs should be completed annually).
3. Contact the WAC about awards and recognition.
INSTRUCTIONS:

The school walkthrough checklist is meant to guide you through the school. If the respective item or issue is identified in a room or area, the room number or room name should be written in the right side column.

CHECK IT OUT:

View Appendix I to see the complete walkthrough checklist or visit our website at chawisconsin.org/walkthrough
INSTRUCTIONS:

Follow these steps to accurately share your walkthrough findings with your leaders and administration.

To accurately reflect the areas needing to be addressed in your school:

1. Accurately record the classroom numbers where triggers were found on the walkthrough checklist.

2. Delete the recommendations that do not apply to your school.

3. Follow next steps at the end of the report to create an action plan to make positive changes to your school environment.

CONTACT US! Visit our website at chawisconsin.org/walkthrough to receive a free guided walkthrough and comprehensive findings report.
INSTRUCTIONS:

Use the school walkthrough press release to promote the outcomes of your school walkthrough.

The WAC encourages schools that complete a school walkthrough program to share their efforts publicly.

Use our template to create a press release or article tailored to your school’s story. Use this in a school newsletter, with local media or other appropriate audiences.

CHECK IT OUT! Visit our website at chawisconsin.org/walkthrough to download the Press Release Template.
The following pages provide an overview of each asthma trigger, why it poses a problem for asthmatics and how the trigger may be addressed. According to the Environmental Protection Agency (EPA), the most common environmental asthma triggers found in school buildings are:

- Classroom pets
- Pests and vermin
- Odors
- Dust and dust mites
- Mold, mildew and moisture

Did you know?

- When people with asthma come in contact with a trigger it can cause a sudden worsening of symptoms which is often called an asthma attack, episode or flare-up.

- The American Lung Association defines an asthma trigger as a thing, activity or condition that makes asthma worse.
CAUSE FOR CONCERN

Animals can be effective teaching tools in the classroom; however, pets can be an environmental asthma trigger. Asthma can be triggered by the skin flakes, urine, feces, saliva and hair shed by warm-blooded mammals.

WHAT TO LOOK FOR

Common classroom pets such as rodents, hamsters, guinea pigs and chicks can trigger asthma attacks.

SOLUTIONS

There are multiple ways to address classroom pets. Recommendations include:

- **GOOD:** Keep animals in localized cages and away from furniture and carpet.
- **BETTER:** Look to alternative pets such as fish and other cold-blooded animals.
  - If these pets are present, keep the tank or habitat well maintained to avoid moisture issues.
- **BEST:** Create a school or district policy restricting warm-blooded pets in school buildings.
  - Please note: pet allergens may remain in the school environment for a while, even after the animal is removed.
CAUSE FOR CONCERN

The waste and saliva of pests contains proteins, which can cause allergic reactions or trigger asthma symptoms in individuals sensitive to these allergens. Pest problems in a school can be caused by poor management of food preparation, food storage and moisture problems.

WHAT TO LOOK FOR

Pest droppings, urine, along with their decaying body parts, and skin are evidence of pests in classrooms. Cardboard boxes and old food that is not disposed of will attract pests.

SOLUTIONS

The best approach to managing pests in the school environment is to implement an integrated pest management (IPM) system. The key to an IPM is to remove the sources that attract pests instead of relying on pesticides. For more information on how to implement an IPM system visit http://www2.epa.gov/managing-pests-schools. Strategies include:

1. Watching for signs of pests.
2. Keeping food, water and garbage contained.
3. Removing areas for pests to move and take shelter.
4. Using control products such as traps, pesticides and baits only as needed and allowed by law.

Toxic chemicals used to manage pests can be harmful to people. Management methods that pose less risk to children and adults in the school environment should be implemented first.
CAUSE FOR CONCERN

Strong odors and scents contain a surplus of concentrated molecules. When breathed in by asthmatics, the molecules can cause airways to close, and trigger an asthma attack.

WHAT TO LOOK FOR

Strong odors and scents found in schools can come from sources such as chemicals, cleaning products, perfumes, cologne, air fresheners and second or third hand-smoke.

SOLUTIONS

Reducing and eliminating odors requires a multifaceted approach in the school environment. Policies regulating sources of odors are often the most effective approach. Recommended policies include:

- Restrict and regulate items used in classrooms, such as air fresheners, candles or potpourri.
- Select fragrance-free consumer products, which release limited chemical odors.
- Choose the least-toxic and most environmentally friendly cleaning products. Consider the time it takes for fumes to dissipate after use.
- Prohibit staff and students from wearing strong scents at school.
- Prohibit staff from smelling of smoke when at school (third-hand smoke policy).
- Educate families about student hygiene.
CAUSE FOR CONCERN

Dust mites are microscopic bugs found in dust that feed on human skin flakes. Dust mite droppings and body parts can trigger asthma. Significant dust mite exposure also may cause asthma in children who have not had asthma symptoms in the past.

WHAT TO LOOK FOR

Dust mites can be found in fabric-covered items such as upholstered furniture, pillows, carpeting and stuffed animals. Dust also collects on hard surfaces such as bookshelves and bins.
SOLUTIONS

Dust and dust mites are the most common environmental asthma triggers found in schools. Recommendations for avoiding dust and dust mites include:

- Upholstered furniture:
  - Vacuum and regularly maintain upholstered furniture.
  - Consider switching from upholstered furniture to wooden or plastic furniture.

- Carpeting
  - Vacuum carpet and area rugs daily.
  - Replace rugs with foam, vinyl or plastic mats.
  - Consider switching to hard floorings when your school decides to change flooring.

- Stuffed animals, pillows, curtains, blankets and fabric cushions
  - Store stuffed animals in closed displays or bins with lids to minimize dust accumulation.
  - Once a month wash in hot water (above 130° F) or place in freezer overnight to kill dust mites.

- Open bookshelves
  - Dust bookshelves regularly with a damp cloth.
  - Utilize baskets to store items.
    - Plastic storage bins
    - Cabinets with doors

- Clutter
  - Encourage staff members to cut down on classroom clutter.
  - Keep classrooms neat and organized.
CAUSE FOR CONCERN

Molds are fungi, which grow on moist surfaces. Mold exposure can lead to respiratory issues, allergic reactions and asthma attacks. All types of mold have the potential to be dangerous and moisture is the most important concern when addressing the growth or spread of mold in the school environment. To ensure the safety and health of building occupants, it may be necessary to contact a professional contractor who is qualified to respond to mold and moisture issues. The EPA provides resources relating to mold remediation, which can be found at http://www.epa.gov/mold/mold_remediation.html.

WHAT TO LOOK FOR

Issues such as leaks in the roof or plumbing, humidity, condensation, and damp or cluttered areas near sinks, appliances and other water sources all can cause excess moisture. Potential areas in classrooms include e.g. appliances, personal refrigerators, plants, sinks, ceilings and walls. Bathrooms in schools should also be inspected for discoloration of pipes and walls near pipes for signs of water leakages or damage. Addressing potential problems before mold growth can occur is ideal.
Moisture sources in schools vary. Policies may be put in place to prevent and reduce potential moisture problems. Below are recommended solutions for each moisture source.

- **Appliances**
  - Require under bedding to catch any residual water.
  - Place appliances away from carpeting.
  - Create a policy prohibiting personal refrigerators and other cooking appliances in the classroom.

- **Plants**
  - Limit the number of plants.
  - Use water trays to collect excess water.
  - Require regular maintenance of plants.
  - Create a policy prohibiting plants from classroom.

- **Sinks**
  - Identify the source of moisture and fix the issue.
  - Replace carpeting by sink area with hard flooring.

- **Ceilings and walls**
  - Clean mold from surface and dry surface thoroughly.
  - Identify source of moisture and fix the issue.

- **Bathroom facilities**
  - Clean bathrooms regularly.
  - Eliminate standing water on sinks and floors
Proper ventilation throughout the school building is an important part of creating a healthier school environment for students with asthma. The EPA provides the following recommendations for ventilation maintenance.

Schools should have their ventilation systems (e.g., air handlers, univent, and air conditioners) inspected annually. Inspections should include intakes and other components.

- Blocked intakes and vents can result in inadequate ventilation. Outdoor univent intakes are usually located close to the ground, so plants and bushes should be cleared in these areas. In the classroom, do not block vents with items such as books, papers, plants or furniture.

- Supply and return air vent grilles should be inspected and cleaned if obstructed with dust.

- The EPA does not recommend cleaning ducts unless there is excessive dust that is compromising performance of the system or being blown onto surfaces. All of the above recommendations should be implemented first before considering cleaning ducts.

The EPA provides a detailed ventilation checklist, along with other resources, which can be downloaded free at www.epa.gov/iaq/schools.
The following organizations and resources are helpful for schools looking to supplement their walkthrough with additional information or programs.

American Lung Association School Flag Program

www.lung.org

The American Lung Association (ALA) in Wisconsin administers the EPA school flag program, which creates public awareness of outdoor air quality conditions. Participating schools raise a colored flag each day that corresponds with the local air quality forecast to notify teachers, coaches, students, and the community about the daily air quality. Contact Keri Schneider at keri.schneider@lung.org for more information.

Children’s Health Alliance of Wisconsin

www.chawisconsin.org

Visit the Alliance website for resources and additional information on WAC and other Alliance initiatives, including early literacy, emergency care, grief and bereavement, injury prevention and death review, medical home, and oral health.

Environmental Protection Agency Indoor Air Quality (IAQ) - Tools for Schools

www.epa.gov/iaq/schools/index.html

This program provides guidance to schools and encourages voluntary adoption of IAQ management practices that reduce exposure to environmental contaminants.
eSchoolCare

son.wisc.edu/eSchoolCare.htm

eSchoolCare is designed to support school nurses and improve health and educational outcomes for children with chronic conditions across the country. eSchoolCare is an innovative technology-enhanced project created through a collaboration between the University of Wisconsin Madison School of Nursing and American Family Children's Hospital.

Green and Healthy Schools Program

dnr.wi.gov/education/educatorresources/ghs/

The Wisconsin Department of Natural Resources in Wisconsin manages the Green and Healthy Schools program, which encourages schools to create healthy learning environments and provides resources and information for school staff and others. The WAC school walkthrough program can accumulate credit towards the Green and Healthy School certification levels.

Green Ribbon Schools, Wisconsin Department of Public Instruction

dpi.wi.gov/environmental-ed/green-ribbon-schools

The U.S. Department of Education's Green Ribbon Schools (ED-GRS) recognizes schools taking a comprehensive approach to creating a green school, including environmental learning and health impacts. The WAC school walkthrough program can be used to apply for Green Ribbon school awards.

Contents of the WAC school walkthrough program were based on the following resources.

- Sensible Steps to Healthier School Environments, United States Environmental Protection Agency, September 2012.
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