

ASTHMA PLAN OF
ACTION

**ASTHMA IN SCHOOLS:
WHAT EDUCATORS NEED TO KNOW**





ISBN 978-1-926555-94-2

Copyright 2013 Ophea. All rights reserved. No part of this resource may be reproduced or transmitted, in any form, by any means (electronic, photocopying, recording, or otherwise) without the prior written permission of the publisher.

IN ONTARIO, ASTHMA AFFECTS ALMOST ONE IN FIVE CHILDREN (20%) AGED 0 TO 9 YEARS OF AGE.¹

Asthma: Definition, Symptoms, and Triggers

Asthma is a chronic inflammatory disease of the airways in the lungs. Inflammation in the airways makes the lungs more sensitive to substances in our environment called “asthma triggers.” When people with asthma are exposed to their triggers, they may experience a narrowing of the airways (resulting from the contraction [squeezing] of the airway muscles), increased airway inflammation, and extra mucus production, making breathing more difficult. Narrowing of the airways causes people to experience asthma symptoms.

Asthma symptoms include:

- ↳ difficulty breathing;
- ↳ coughing;
- ↳ wheezing (whistle sound);
- ↳ chest tightness; and
- ↳ shortness of breath.

Not all people with asthma have the same triggers. Triggers can bring on an asthma attack, which can be life-threatening if left untreated. Common asthma triggers include exercise, infections (colds, bronchitis), dust (dusty gym mats, chalk dust, stuffed animals), house dust mites, extremes in weather (cold and hot), poor air quality, pollen (trees, grasses, flowers, weeds), animals, pests (mice, rats, cockroaches), mould (found in decaying leaves, water-damaged areas), smoke, cleaning products, strong smells (indelible markers, paint), and perfume.

Often exposures to asthma triggers can't be completely avoided, but steps need to be taken to minimize exposure.



¹ ICES Report, Burden of Childhood Asthma, May 2004.

ASTHMA IS A LEADING CAUSE OF HOSPITALIZATION AND SCHOOL ABSENTEEISM FOR CHILDREN IN ONTARIO.²

Steps to Reduce Exposure to Triggers

- ↳ Avoid asking the student with asthma to clean the chalkboard or chalk-filled brushes.
 - ↳ Use dustless chalk or a white board.
 - ↳ Ensure your classroom/gym is regularly cleaned.
 - ↳ Damp-wipe shelves, gym mats, and tables/desk-tops; and damp-mop floors, stairwells, and hallways.
 - ↳ Keep clutter to a minimum and remove old books.
 - ↳ Replace upholstered furniture with smooth-surfaced furniture that is easy to wipe down.
 - ↳ Avoid carpeting.
 - ↳ Avoid having animals in the classroom.
 - ↳ Report water damage and mould growth to the principal.
 - ↳ Create a scent-free classroom/school. Choose scent-free products when possible: for example, unscented markers, art supplies, cleaning products, perfumes.
- ↳ Encourage students with asthma to wear a scarf or facemask in cold weather to help warm and humidify air.
 - ↳ Keep classroom windows closed on high-pollen count and poor air quality days.
 - ↳ Check pollen levels in your community at theweathernetwork.ca and air quality forecasts and smog alerts at airqualityontario.com.
 - ↳ Cancel outdoor activities on smog alert days.
 - ↳ Encourage “no idling” policies. Ensure that school bus drivers and parents/guardians turn off vehicle engines while waiting.

Access to Reliever Medication

All students with asthma should have easy access to their reliever inhaler either on their person or in the classroom. Easy access to this medication is crucial to relieve symptoms and prevent life-threatening asthma. Relievers may also be called “rescue” medication and tend to be blue in colour. Relievers work by opening up the airways quickly (within 5 to 10 minutes) and are used on an as-needed basis to reverse/relieve asthma symptoms.

Many students with asthma also need to use controller medications, which are typically taken in the morning and before bed and are therefore kept at home. They work by controlling the inflammation in the airways and are important for keeping asthma under good control.



Uncontrolled Asthma

Students spend significant time at school, placing school personnel in a good position to identify uncontrolled asthma. With controlled asthma, students with asthma are able to participate in school activities similar to students without asthma. Uncontrolled asthma can lead to students removing themselves from normal school life. If you suspect a child's asthma is not well controlled, inform the parents/guardians as a visit to a health care provider may be required.

The following situations suggest that asthma is not well controlled and that parents/guardians should be informed.

- 🔔 The student has regular asthma symptoms.
- 🔔 The reliever medication is used more than four times per week, including times prior to physical activity.
- 🔔 The student develops asthma symptoms during or after physical activity.
- 🔔 The reliever medication is used more than every four hours on a given day.

Identifying and Treating an Asthma Emergency

When a person with asthma experiences distressful asthma symptoms, it is called an asthma "flare-up," "episode," or "attack." If an asthma attack is severe and left untreated, it can lead to death. Therefore, it is crucial to know how to recognize and respond to an asthma emergency.



Recognizing an Emergency Situation

It is an asthma emergency if **any** of the following symptoms occur:

- 🔔 Breathing is difficult and fast.
- 🔔 Speaking is difficult.
- 🔔 Lips or nail beds are blue or grey.
- 🔔 Skin on neck or chest is sucked in with each breath.
- 🔔 You have **any** doubt about the student's condition.
- ★ *The student may also be anxious, confused, or tired.*

Emergency Action Steps

- 🔔 Call 911 and wait for the ambulance. DO NOT drive the student to the hospital.
- 🔔 Immediately use the fast-acting reliever inhaler (usually blue).
- 🔔 Continue to use reliever inhaler every 5 to 15 minutes until medical help arrives.
- 🔔 Have the student sit up, with arms resting on a table. (Do not have the student lie down unless it is a life-threatening allergic event.)
- 🔔 Stay calm, and reassure and stay with the student.
- 🔔 Notify parents/guardians or emergency contacts.

Did you know that many school boards/schools already have Emergency Action Plans to help you prepare and respond to an asthma emergency? Contact your school board/school for more information!

DAILY PHYSICAL ACTIVITY IS ESSENTIAL TO CHILDREN'S GROWTH AND DEVELOPMENT AND ASTHMA SHOULD NOT BE USED AS AN EXCUSE TO AVOID PARTICIPATING IN PHYSICAL ACTIVITY. UNLESS STUDENTS ARE EXPERIENCING ASTHMA SYMPTOMS AND/OR HAVE A COLD THAT IS MAKING THEIR ASTHMA WORSE, THEY SHOULD BE ABLE TO PARTICIPATE IN PHYSICAL ACTIVITY.

Exercise-Induced Asthma (EIA)

Vigorous activity is a common asthma trigger, resulting from the cooling and drying of the airways caused by breathing through the mouth (versus the nose) at a rapid rate. For students with asthma, this fast-paced breathing triggers airway narrowing and the experience of asthma symptoms. EIA symptoms can occur several minutes into the activity and up to 30 minutes after completion of the activity. Asthma symptoms from exercise are often due to poorly managed asthma, and a visit to a health care provider may be required.

EIA is more commonly experienced when activity is performed:

- ✦ in cold environments;
- ✦ in conjunction with an upper respiratory infection (cold);
- ✦ with sustained running;
- ✦ during high pollen count days; or
- ✦ during poor air quality days.

Strategies for Managing Exercise-Induced Asthma

- ✦ The student should NOT participate in physical activity if already experiencing asthma symptoms.
- ✦ If the student starts having asthma symptoms after starting physical activity, have the student stop the activity and take the reliever inhaler (two puffs given one puff at a time, with 30 seconds between puffs). When the student is fully recovered, he/she may resume the activity.
- ✦ If the symptoms are not relieved within 10 to 15 minutes after using the reliever inhaler, repeat the two puffs of the reliever medication, monitor the student's status, and do not allow him/her to return to the activity.
- ✦ If the student's asthma symptoms do not improve, or worsen, this is an emergency situation and 911 should be called. Follow the steps for **Identifying and Treating an Asthma Emergency**.

What You Can Do: Create Asthma Friendly Schools

Students with asthma need extra support to ensure that they are full participants in all aspects of the learning experience. Strategies to achieve this include:

- 📌 knowing your school board/school policies related to asthma;
- 📌 knowing which students have asthma and how their asthma is managed;
 - Meet with parents/guardians to learn about the student's asthma triggers and to obtain a completed Student Asthma Management Plan (available at on.lung.ca) for managing and preventing asthma symptoms, triggers, and medications.
- 📌 ensuring asthma medications are easily accessible;
 - Collect asthma medication information and medication administration forms at the beginning of each school year so that the student can easily access and use the reliever medication while at school.
- 📌 being prepared to assist with administering asthma medication;
- 📌 being prepared to identify and handle worsening asthma and asthma emergencies (order "Managing Asthma Attacks" posters and reference sheets from The Lung Association at on.lung.ca);
- 📌 creating a process to inform supply teachers of students with asthma;
- 📌 being aware of potential asthma triggers in your school;
- 📌 encouraging students to communicate when their asthma is bothering them and removing them from potential triggers;
- 📌 not overprotecting or isolating the student with asthma;
- 📌 discussing asthma with your class;
 - Let them know how to identify worsening asthma and the steps to help their peers. Students aged 7 to 11 can visit: asthmaKids.ca;
- 📌 calling The Lung Association and the Asthma Society of Canada for resource materials for teachers; and
- 📌 being aware of the possible need to adapt an activity for students with asthma.

Strategies for Managing Asthma When Going Off School Grounds

- 📌 Be aware of potential asthma triggers that may exist on field trips.
- 📌 Notify parents/guardians well in advance of school trips. Provide the location, possible triggers, and describe the activities that will occur.
- 📌 Ensure there is a way to contact Emergency Medical Services (911) should an emergency arise.
- 📌 Ensure field trip personnel are prepared to handle worsening asthma and asthma emergencies.
- 📌 Ensure students have easy access to their asthma reliever medication.

Resources and Supports

Ophea
ophea.net

Ontario Physical Education Safety Guidelines
safety.ophea.net

Public Health School Asthma Program
asthmainschools.com

The Asthma Society of Canada's toll-free number: 1-866-787-4050
or websites asthma.ca and asthmaKids.ca

The Lung Association's Asthma Action Helpline:
1-888-344-LUNG (5864) or visit on.lung.ca




Asthma.ca
Asthma Society of Canada

THE  LUNG ASSOCIATION™
L'ASSOCIATION PULMONAIRE
Ontario

Public Health School Asthma Program

 Ontario