

# CREATING ASTHMA FRIENDLY SCHOOLS

*[asthmafriendly.ca](http://asthmafriendly.ca)*



# Acknowledgements

The *Creating Asthma Friendly Schools* manual was adapted from the Creating Asthma Friendly Schools Resource Kit.

Ophea wishes to acknowledge the contribution of the many individuals, groups and organizations that participated in the development of the *Creating Asthma Friendly Schools* manual.

Julia Brdarevic, RN, BScN., B.Ed.

Lisa Cicutto, RN, PhD, CAE

Elizabeth Conti, RN, BScN., City of Hamilton, Public Health Services

Rebecca Lewis, RN, BScN., Halton Region Health Department

Sue Murphy, RN, CAE

K.C. Rautiainen, RN, BScN., Sudbury & District Health Unit

Cathie Snider, RN, BScN., MN, Public Health Nurse, Durham Region Health Department

Muriel Rounthwaite, Projects Leader, Ophea

The content of this manual is based on current available evidence and has been reviewed by medical experts. It is provided for informational purposes only. The views set out in this manual are those of the authors and do not necessarily reflect those of the Government of Ontario. The information is general in nature and is not intended to be a substitute for sound clinical judgment. Seek the advice and expertise of your health care providers with any questions you may have about your health.

Copyright 2019 Ophea. All rights reserved. Program materials may be reproduced for educational purposes, without permission, provided suitable credit given.

# Table of Contents

**Introduction to the Manual — 4**

**Seven Goals for Asthma Friendly and Supportive Schools — 5**

**Section One: Overview of Asthma — 6**

**Why Schools Need to Know About Asthma — 7**

**What Is Asthma? — 7**

**What Is an Asthma Trigger? — 8**

**What Happens When Asthma Is Triggered? — 9**

**Asthma Control Is Key — 9**

**Asthma Medications — 9**

*Relievers*

*Controllers*

**Common Asthma Situations — 11**

*Asthma and Physical Activity*

*Asthma and Anaphylaxis*

*Identifying and Managing Worsening Asthma and an Asthma Emergency*

*Field Trips*

**Section Two: Creating Asthma Friendly Schools — 14**

**Asthma and Student Success — 15**

**How to Create Asthma Friendly and Supportive Schools — 15**

**Student's Plan of Care — 16**

**Staff Education/Training — 16**

**Creating Asthma Friendly Schools Implementation Flow Chart — 17**

**Collaborate with Others — 18**

**Connections to the Ministry of Education Policies — 18**

*Foundations for a Healthy School*

**Section Three: Implementation Supports and Resources for Schools — 19**

**Appendix 1: Asthma Triggers — 20**

**Appendix 2: Managing Asthma Attacks Poster — 24**

**Appendix 3: Sample Asthma Policy — 26**

**Appendix 4: Sample Plan of Care — 28**

**Appendix 5: Management of Asthma — School Board Implementation Tips — 32**

**Appendix 6: Management of Asthma — Administrator Implementation Tips — 33**

**Appendix 7: Management of Asthma — Teacher Implementation Tips — 34**

**Appendix 8: Management of Asthma — Parents/Guardians of Students with Asthma Implementation Tips — 36**

**Appendix 9: Management of Asthma — Student with Asthma Implementation Tips — 38**

**Appendix 10: Additional Asthma Resources for Schools — 39**

**References — 40**

## Introduction to the Manual

The *Creating Asthma Friendly Schools* manual was developed to support school boards and schools with the implementation of the requirements set out in *Ryan's Law (Ensuring Asthma Friendly Schools), 2015* and *Policy/Program Memorandum (PPM) No.*

*161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools, 2018* to support students with asthma. Creating and maintaining asthma friendly school environments demonstrates a school's commitment to the safety, well-being and achievement of all students, as well as assisting them in reaching their full potential.

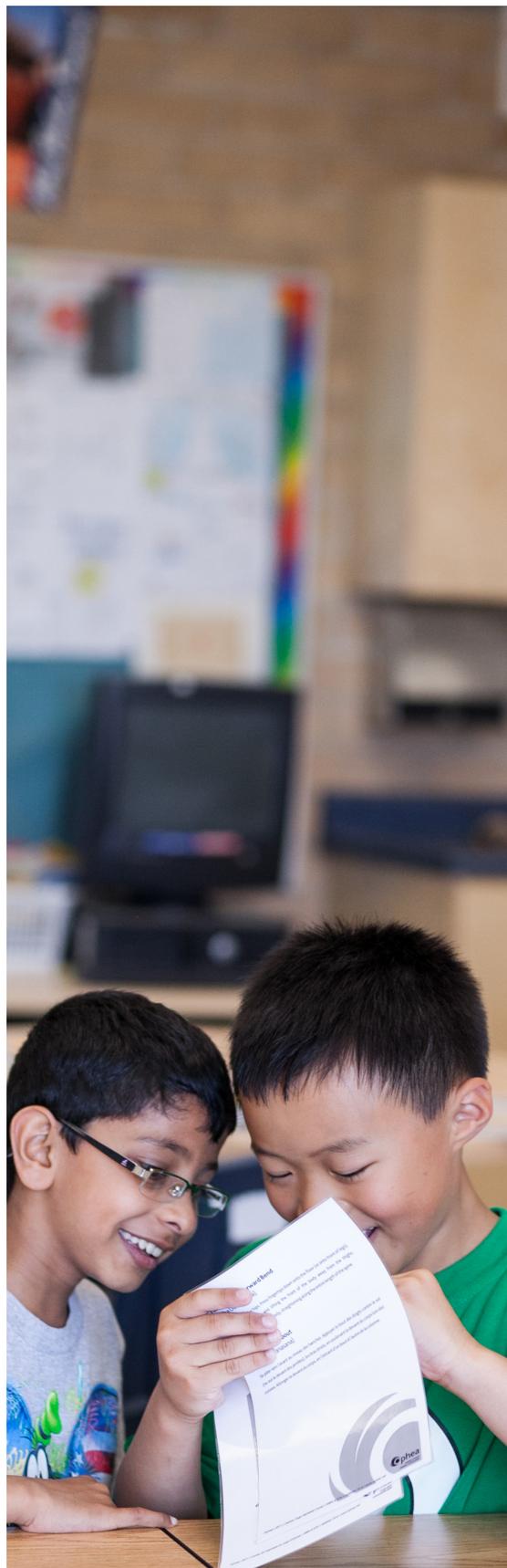
The goals, recommendations and implementation strategies described in this manual are evidence-based responses to needs identified by schools. These recommendations and implementation strategies were evaluated for their effectiveness through formal research projects. This research demonstrated that asthma friendly and supportive schools could be created and resulted in benefits for schools and students with asthma.<sup>i,ii</sup> Benefits were seen in reduced school absenteeism, increased levels of participation in physical activity and overall school preparedness, such as identifying and handling worsening asthma and emergency situations.<sup>iii,iv</sup>

This manual is designed for use by any member of the school community. To assist with implementation, and in recognition of the importance of a team-based approach, the manual provides suggestions for the following specific roles:

- administrators;
- teachers;
- parents/guardians of students with asthma; and
- students with asthma.

The manual is divided into three sections. Section One provides an overview of asthma. Section Two focuses on creating supportive and asthma friendly schools by providing recommendations and strategies for implementation. Section Three contains implementation supports and resources to assist in attaining asthma friendly goals in schools.

Recognizing that schools often have child care centres within their building and that these centres have special situations, a separate manual for child care centres, *Creating Asthma Friendly Child Care Centres*, can be accessed at [www.asthmafriendly.ca](http://www.asthmafriendly.ca).



# Seven Goals for Asthma Friendly and Supportive Schools

Creating asthma friendly and supportive schools is a shared responsibility that requires a team approach, which includes students with asthma and their parents/guardians, their health care providers and school staff.

## An asthma friendly and supportive school will:

- know which students have asthma and/or use asthma medicine;
- ensure that reliever medications are easily accessible to students with asthma;
- ensure that staff are prepared to identify and handle worsening asthma and asthma emergencies;
- reduce exposure to asthma triggers;
- facilitate full participation of students with asthma in all activities, including physical activity and play;
- provide learning opportunities for students, parents/guardians and school staff to learn about asthma; and
- work with students, parents/guardians, health care professionals and community organizations to successfully manage asthma.





# Section One: Overview of Asthma

## Why Schools Need to Know About Asthma

Asthma is one of the most common chronic childhood disease, affecting as many as one in five children in Ontario.<sup>v</sup> In a classroom of 25 students, it is likely that at least five of them will have asthma.

Asthma is a leading cause of hospital admissions, emergency room visits and school absenteeism.<sup>vi</sup> Asthma can cause disrupted learning through school absenteeism and interrupted sleep, which affects the ability to concentrate.<sup>vii</sup> In addition, uncontrolled asthma interrupts normal daily life, such as playing, socializing and physical activity. Students with asthma can lead healthy, happy, active lives by maintaining control of asthma through appropriate medications and management of their triggers.

## What Is Asthma?

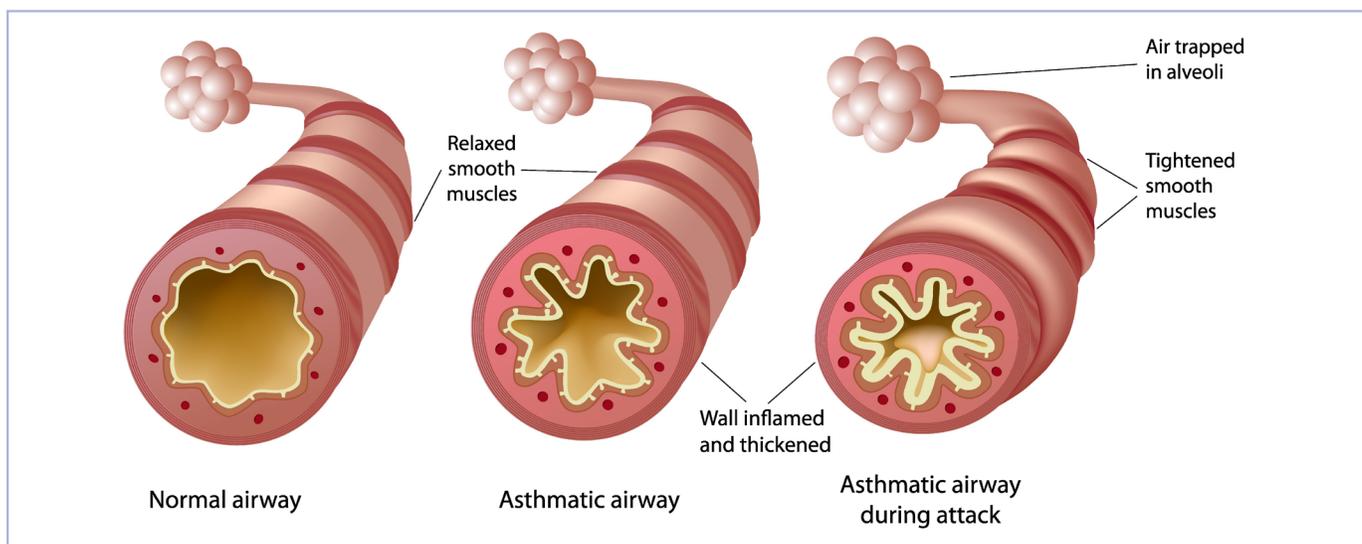
Asthma is a chronic inflammatory condition in the airways of the lungs.

Students with asthma have very sensitive, twitchy airways. These sensitive airways react to things in their environment. These things in the environment that bring on asthma symptoms are called “triggers.”

When students with asthma come into contact with one of their triggers, the three following reactions may occur that cause the airways in their lungs to narrow:

1. The lining inside the airways starts to swell (becomes inflamed).
2. Excess mucus is produced and builds up in the airways.
3. The muscles that wrap around the outside of the airways contract, squeezing or constricting the airways.

*Illustration 1: Illustration of a Normal Airway, Asthmatic Airway and an Asthmatic Airway during an Asthma Attack*



This narrowing of the airways can lead to symptoms of asthma such as:

- coughing;
- wheezing;
- difficulty breathing; and
- chest tightness.

For some students with asthma, the most common (and perhaps only) symptom is coughing.

## What Is an Asthma Trigger?

Triggers are things in the environment that cause, provoke or aggravate asthma symptoms (for example, coughing, wheezing, difficulty breathing).

Common triggers include:

- viral infections (for example, colds/flu), which cause up to 90 percent of asthma flare-ups in children;
- tobacco smoke;
- air pollution;
- physical activity;
- extremes in weather;
- allergies (for example, animals, pollen, mould, dust, dust mites); and
- strong odours (for example, paints, permanent markers, perfumes, cleaning products, glue).

Other triggers include food and food additives, smoke from fires, some medications and strong emotions (laughter, crying, fear, anxiety).

Not all students with asthma share the same triggers. Each person with asthma has their own set of triggers and will not always respond to them in the same way after an exposure. Sometimes not all triggers are known to the student.

Parents/guardians/adult students should keep the school informed and updated on the student's asthma condition through the completion of the Plan of Care (refer to Appendix 4). Because asthma triggers can change, and new ones can be identified, the home-school communication is crucial. Reducing exposures to students' specific triggers can reduce the chances of an asthma flare-up as well as the need for medication.

To support students with asthma, schools should consider reducing environmental exposures, Refer to Appendix 1.

Asthma triggers are typically divided into two types: irritants and allergens. Allergens involve an immune response of the body in which the immune system fights off a perceived threat that would otherwise be harmless. For an extensive list of common asthma triggers as well as strategies to reduce exposure, refer to Appendix 1.

## What Happens When Asthma Is Triggered?

When asthma is triggered, a sudden narrowing of the airways can produce what is often called an “asthma attack” or “asthma flare-up.” Some flare-ups or attacks can take several hours to happen because of the time it takes for the airway inflammation or swelling to happen. The underlying level of airway inflammation predicts how “twitchy” or reactive the airways will be to the triggers. Ongoing and sustained exposure to the student’s asthma triggers lead to more severe asthma and more frequent symptoms, such as difficulty breathing, wheezing and coughing. Medication can relieve and help prevent these symptoms. Reducing or eliminating exposure to triggers can help to prevent an attack and symptoms.

## Asthma Control is Key

When asthma is well controlled, the student will have infrequent symptoms and minimal to no disruption in their life. The level of asthma control has to do with the degree of inflammation in the airways. When the airways are very inflamed, they are irritable, more twitchy and will react by narrowing to more triggers with less exposure. The poorer the asthma control, the more inflamed the airways thus, the more asthma symptoms are experienced. When asthma inflammation is minimal, the airways are less twitchy and less likely to be triggered with resultant airway narrowing.

Asthma is **well controlled** when:

- asthma symptoms are experienced fewer than four times in a week;
- the reliever medication (usually a blue inhaler) is used less than four times in a week;
- physical activity or play are unrestricted with no asthma symptoms experienced;
- sleep is uninterrupted with no awakenings due to asthma; and
- no asthma attacks occur.

Signs that asthma is **poorly controlled** include:

- having asthma symptoms (for example, cough, trouble breathing, wheezing) three or more times a week;
- using the reliever inhaler three or more times a week to treat symptoms;
- waking up at night or in the early morning due to asthma symptoms (once a week is too much);
- trouble playing or being physically active because of asthma symptoms;
- missing school due to asthma; and
- having asthma attacks or flare-ups.

If you are concerned about a student’s level of asthma control, because you have observed these signs, talk to the student (if age-appropriate) and the parents/guardians and let them know what you are observing.

## Asthma Medications

Asthma medicines don’t cure asthma. They do prevent and relieve asthma symptoms. The two main types of asthma medications are relievers and controllers. Both are important but work in different ways to control asthma.

### Relievers (usually blue)

- work quickly (five to ten minutes) by relaxing the muscles that wrap around the airways to open up the airways and give quick relief from asthma symptoms;
- are used when needed to relieve asthma symptoms and as a result must always be quickly accessible in case of asthma emergencies; and
- provide relief from symptoms for four to six hours.

Young students with asthma will require adult assistance to administer their medication. With proper instruction, most students in grade 2 (seven years or older) have the ability to understand when their medication is needed and how to use it correctly. For asthma medications that involve a spray inhaler (such as metered dose inhaler), it is recommended that a spacer be attached to the inhaler to ensure good delivery of medication to the lungs and to make it easier to administer the medication. A life-threatening asthma attack can occur at any time, and it is extremely important for those with asthma to have easy access to their reliever inhaler (usually blue). *Ryan's Law (Ensuring Asthma Friendly Schools), 2015* requires that every school principal must permit a student to carry their asthma medication if the student has their parent's or guardian's permission. If the student is 16 years or older, the student is not required to have their parent's or guardian's permission to carry his or her asthma medication. Note that *Policy/Program Memorandum (PPM) No. 161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools, 2018* also states that schools must support and empower students to self-manage their medical condition(s) according to their Plan of Care.

*Illustration 2: Sample of Relievers and Reliever with Spacer*



## Controllers

- Reduce and prevent inflammation and slow the production of mucus in the airways.
- Typically taken on a daily basis, usually twice a day, in the morning and night. However, they can be taken four times a day during an asthma flare-up or exacerbation.
- Some controller medications are combination inhalers that contain both an inhaled steroid to control inflammation and a long-acting bronchodilator that reverses airway narrowing.
- It is important to clarify with parents/guardians of children with asthma if this type of medication is to be used in the school setting and when and how it is to be used.

*Illustration 3: Sample of Controller Medications*



## Common Asthma Situations

### Asthma and Physical Activity

Vigorous activity often triggers asthma symptoms. This is especially the case in extremes of weather and/or when a student's asthma is not well controlled, such as when recovering from a common cold or infection. Physical activity should not be started if the student is already experiencing asthma symptoms. Asthma symptoms can occur several minutes into the activity and/or up to 30 minutes after stopping the activity. If a reoccurring pattern of asthma symptoms with physical activity is seen, talk to the student (if age-appropriate) and the parents/guardians and let them know what you are observing. Having asthma interrupt physical activity is a common sign that the asthma is not well controlled.

The following strategies can help students with asthma to participate in physical activity:

- The student should not participate in physical activity if they are already experiencing asthma symptoms.
- Ensure a gradual warm-up has occurred before activities requiring sustained exertion.
- Be aware of potential asthma triggers in the area and try to reduce exposure to them. Please refer to Appendix 1.
- Encourage the student to wear a scarf or facemask in cold weather to help warm and humidify the air.
- Move planned outdoor activities to well-ventilated indoor sites if there are extreme weather conditions (cold, hot, humidity, wind), high pollen counts or poor air quality.
- Check pollen levels in your community at [www.theweathernetwork.ca](http://www.theweathernetwork.ca) and air quality forecasts and smog alerts at [www.airqualityontario.com](http://www.airqualityontario.com) and [www.airhealth.ca](http://www.airhealth.ca). In general, consider modifying plans for outdoor physical activity if the Air Quality Health Index (AQHI) is between four and ten for students with asthma or between seven and ten for the general population.<sup>viii</sup> This is a general guideline for the use of the AQHI. Some students with asthma may experience triggering of their asthma at a lower level if they have poorly controlled or severe asthma, while others with asthma may have no problems in the upper range of the AQHI if their asthma is well controlled.
- Have parents/guardians inform staff of modifications or considerations for participating in physical activity.
- Notify parents/guardians if the student is repeatedly not able to fully participate in physical activity because of asthma symptoms; this can be a sign of poorly controlled asthma that requires follow-up with their health care provider.

The risk of exercise-induced asthma symptoms is reduced by keeping asthma well controlled. Sometimes a reliever inhaler is prescribed to be taken 10 to 15 minutes before the activity is started to prevent symptoms for students with more difficult to control asthma. For most students, their reliever inhaler will not be used before starting physical activity to prevent symptom experience. If a student uses the reliever inhaler before the activity and symptoms develop during the activity, the reliever can be used again to relieve symptoms. However, the student should not continue the activity and their asthma should be monitored for incomplete relief or worsening asthma. For students with exercise-induced asthma, the teacher/coach should review each student's Plan of Care (refer to Appendix 4) for specific information on managing asthma during physical activity and have a conversation with each student and/or the student's parent/guardian to learn more about the student's asthma.

## Asthma and Anaphylaxis

Students with asthma in conjunction with life-threatening allergies (such as, anaphylaxis) are at a much greater risk of having a severe and fatal reaction. Understanding the signs and symptoms of asthma and anaphylaxis are necessary to manage serious and life-threatening reactions. Refer to students' Plan of Care form which contains information about life-threatening allergies and asthma. Know what causes their anaphylaxis, the signs and symptoms of a reaction and how to manage the reaction. Refer to your school board's Anaphylaxis Policy for more information regarding the prevention and management of life-threatening allergies. If a student has both asthma and anaphylaxis and is experiencing a life-threatening reaction, an epinephrine auto-injector (for example, EpiPen) should be easily accessible and used before the reliever inhaler.

## Identifying and Managing Worsening Asthma and an Asthma Emergency

It is difficult to predict when an asthma attack/flare-up will occur. When a student experiences asthma symptoms such as difficulty breathing, coughing and/or wheezing, the use of the reliever medication is quickly needed. Most students past Grade 2 can use their inhaler accurately and on their own. However, some students will require assistance. If a student experiences asthma symptoms, follow recommendations outlined in their completed Plan of Care (refer to Appendix 4). In general, when asthma symptoms are experienced, two puffs of the reliever inhaler are taken, with each puff separated by 30 seconds. Asthma symptoms should be relieved within 15 minutes of using the reliever inhaler. The Ontario Lung Association's *Managing Asthma Attacks* poster is displayed in Appendix 2. It outlines how to determine the severity of the asthma attack/flare-up and the steps to take. This poster and its steps should be reviewed annually by all school staff. Schools can request copies for staff and volunteers free of charge from the Ontario Lung Association or copies can be ordered and downloaded from [lungontario.ca](http://lungontario.ca)

For video demonstrations on how to use the various inhaler devices visit: <https://lungontario.ca/disease/asthma/treatment-and-medication/inhalers-how-to/>. *Ophea's Implementing Ryan's Law: Ensuring Asthma Friendly Schools eLearning Module* and/or *Ophea's Managing Asthma in Our Schools* video should be reviewed annually.

School boards should have procedures to manage worsening asthma to ensure that all staff, students and volunteers know how to respond appropriately and know what to do in an asthma emergency.

## Field Trips

When leaving the school grounds for field trips, competitions or excursions, take the Plan of Care forms in case of worsening asthma (attacks or flare-up). It is important that parents/guardians of students with asthma know the details of a field trip several days prior to the trip in the event special arrangements need to be made. If overnight field trips are planned, students with asthma may need to bring additional asthma medicines that are normally kept at home but will be used on the trip.





## Section Two: Creating Asthma Friendly Schools

### Asthma and Student Success

Asthma is the most common chronic disease in children and youth and is recognized as a health factor that contributes to educational disparities. Students with asthma are more likely to have high rates of school absenteeism that ultimately can affect school performance, advancement and graduation rates. Schools represent the first setting that children with asthma develop and refine their asthma self-management skills. At school, they are expected to recognize and handle worsening asthma, identify the need for medication with proper administration, reduce their exposure to triggers and negotiate complex social situations.

*Ryan's Law (Ensuring Asthma Friendly Schools)*, came into effect on May 5, 2015. The legislation requires every school board in the province to develop an asthma policy. Schools are also required to develop an individual plan for every student with asthma, and allow students to carry their inhalers (parent or guardian permission is required for those under 16 years of age).

*Policy/Program Memorandum (PPM) No. 161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools* came into effect September 1, 2018. This policy requires school boards to support students with anaphylaxis, asthma, diabetes, and/or epilepsy. Parents of children with prevalent medical conditions, school staff and principal, and children with prevalent medical conditions work in unison to ensure a safe and empowering environment for those children. A Plan of Care (refer to Appendix 4) must be used by school boards as a tool for fostering a positive environment for children with prevalent medical conditions.

Creating asthma friendly schools allows students with asthma to:

- maximize their potential for growth, development and achievement;
- experience positive educational, social and health benefits; and
- develop lifelong skills for managing their asthma.

Schools that create asthma friendly and supportive environments can expect the following positive results:

- reduced student absenteeism;
- reduced disruption in the classroom;
- appropriate management of asthma episodes and emergencies; and
- full student participation in physical activities, learning and social engagement.

### How to Create Asthma Friendly and Supportive Schools

In order to create asthma friendly school environments, all members of the school community need to be involved (such as, administrators, teachers, coaches, school staff, volunteers, students with asthma and their parents/guardians). School boards are required to develop an asthma policy that includes the details required by *Ryan's Law (Ensuring Asthma Friendly Schools)*, 2015 and *Policy/Program Memorandum (PPM) No. 161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools*, 2018. A sample asthma policy has been developed for school boards by the Ontario Education Services Corporation. It is provided in Appendix 3. Check with your local public health unit, as they may be able to assist in the policy development process.

To promote successful implementation, Implementation Tips (included in Appendices 5–9) are especially helpful and were developed for each member of the school team to assist in creating supportive schools. These resources can either be used “as is” or modified to meet your school’s needs. These tips should be provided to all team members annually.

## Student's Plan of Care

At the beginning of each school year, the registration process must involve identifying which students have asthma. The principal must complete the Plan of Care for each student with asthma in consultation with their parent/guardian and the student (as appropriate to their stage of development) within the first 30 school days of each school year. It should be updated when there are any changes to the student's medical condition.

With parent/guardian permission, the Plan of Care is shared with all school staff who work with the student so they can respond more appropriately if there is an asthma flare-up and/or emergency.

The school should also communicate with the school bus company regarding students with asthma. The bus drivers will follow the duties described in the school bus company's policy and procedures manuals.

## Staff Education/ Training

Staff training should occur before the start or early in the school year to review asthma medications, signs of controlled asthma, signs of worsening asthma/flare-up and how to respond. Resources exist to support this training activity:

- Access Ophea's *Implementing Ryan's Law: Ensuring Asthma Friendly Schools eLearning Module* for staff training (for more information on how to access this resource, refer to Appendix 10). This eLearning module tests participant's application of knowledge.
- Watch Ophea's *Managing Asthma in Our Schools* video and guide during staff trainings (for more information on how to access this resource, refer to Appendix 10).
- Review the Ontario Lung Association's *Managing Asthma Attacks* poster to teach school staff and support them in identifying and responding accurately to worsening asthma. Free copies can be ordered from [lungontario.ca](http://lungontario.ca) (for a sample and information on how to order, refer to Appendix 2).

Providing asthma education for staff enables them to identify common asthma triggers, understand asthma signs and symptoms and increases their confidence with managing asthma flare-ups and/or emergencies and supporting students with asthma to be full participants in school.



# Creating Asthma Friendly Schools

## Implementation Flow Chart



### **Step One: Establish a process to identify students with asthma.**

Include questions about asthma on registration forms (for example, Does your child/ward have asthma? Does your child/ward use asthma medicines?)



### **Step Two: Implement strategies to manage worsening asthma at the individual student and school level.**

For each student with asthma, co-develop the Plan of Care with the parent/guardian of students with asthma, school staff (as appropriate) and the student with asthma (as appropriate). Follow your board's policy for recognizing and managing worsening asthma and asthma emergencies. Display the Managing Asthma Attacks poster in various locations (such as the gym, front office, main lobby).



### **Step Three: Ensure students with asthma have quick access to asthma medication.**

Follow your board's asthma policy or medication policy to ensure that students with asthma have easy access to their asthma medications. Students seven years or older are usually capable of deciding when and how to use their asthma inhalers. If students require help administering medication, ensure it is easy to access. Asthma medications should never be locked up.



### **Step Four: Identify and reduce common asthma triggers within the school.**

Take action to reduce exposure to asthma triggers (for example, dust, moulds, pests, strong smells/scents).



### **Step Five: Encourage students with asthma to participate in physical activity and play.**

Support students with asthma to participate in physical activity and play. Monitor students for asthma symptoms.



### **Step Six: Provide opportunities for asthma education.**

Provide learning opportunities for staff, students with asthma, parents/guardians and the general student body on:

- asthma signs and symptoms;
- triggers;
- medication and use; and
- identifying and responding to asthma flare-ups and emergencies.



### **Step Seven: Collaborate with community partners to create an asthma friendly school.**

Consult with asthma experts annually to review and update policies that support students with asthma. Work with families of students with asthma to help support successful asthma management at school.

## **Collaborate with others (such as public health, students' health care providers, parents/guardians and community partners) to create asthma friendly schools.**

It is essential that schools communicate with students with asthma and their parents/guardians about their roles and expectations, such as:

- co-developing the Plan of Care;
- supplying asthma medicines and necessary equipment;
- updating the Plan of Care throughout the school year when changes to the student's medical condition;
- meeting with school staff, if staff assistance with medication is needed in terms of when and how medicines are to be used; and
- responsible use of medications, such as not sharing with peers.

There are a variety of organizations and community partners who have created resources and are available for consultation to support asthma friendly schools. Refer to Appendix 10 for additional asthma resources available to meet your needs.

## **Connections to the Ministry of Education Policies**

### **Foundations for a Healthy School**

The Ontario Government created the Foundations for a Healthy School framework to help contribute to a learning environment that promotes and supports student well-being. This goal emphasizes the need to focus not just on academic success, but also on the whole child and student – their cognitive, emotional, social, and physical development.

The framework identifies five interconnected areas that together inform a comprehensive approach to developing a healthier school. This comprehensive approach ensures that students learn about healthy, active living in an environment that reinforces their learning through policies, programs, and initiatives that promote healthy, active living.

The five areas are as follows:

- **Curriculum, Teaching, and Learning.** By providing asthma education opportunities for students, staff, parents/guardians and volunteers, students with asthma will be supported and ready to learn.
- **School and Classroom Leadership.** Ensuring asthma policies and procedures are in place supports students with asthma.
- **Student Engagement.** Provide opportunities for students to share and learn with each other related to asthma and asthma friendly schools.
- **Social and Physical Environments.** Establishing a process to identify students with asthma, allowing students with asthma easy access to their asthma medication and reducing common asthma triggers in the indoor and outdoor environment improve the environment for all students. By encouraging students with asthma to be full participants in all aspects of the school experience (school teams, daily physical activity) promotes positive cognitive, emotional, social and physical development of all students.
- **Home, School, and Community Partnerships.** Collaborating with home, school and community partners support the creation of asthma friendly environments.<sup>ix</sup>



## Section Three: Implementation Supports

This section provides implementation supports and resources to assist in creating asthma friendly schools.

### Appendix 1: Asthma Triggers

**Table 1: Asthma Irritants and Sources of Exposure**

Irritants and Sources of Exposure	Steps to Reduce Exposure
<p><b>Viral and Bacterial Infections</b></p> <ul style="list-style-type: none"> <li>• Colds and flu</li> <li>• Sinusitis</li> </ul>	<p>The best preventive action to avoid viruses and bacteria is frequent hand washing with soap and water and keeping your hands out of your nose, mouth and ears. Other important preventive actions are: Covering your mouth with your elbow when you cough and covering your nose when sneezing and keeping the area below your nose clean with a tissue. Local health units can provide resources to help with decreasing the spread of infections. The flu shot is recommended for everyone over the age of six months. Flu shots are even more important for students with asthma as they are a high-risk group.</p>
<p><b>Tobacco smoke</b></p> <ul style="list-style-type: none"> <li>• Secondhand smoke is a well-known asthma trigger and may also contribute to the development of asthma in infants.</li> <li>• Thirdhand smoke (such as tobacco smoke remaining on the hair, clothing, and body of smokers) can trigger asthma symptoms.</li> </ul>	<p>Schools should be a smoke free environment. Students should not be exposed to tobacco smoke.</p>
<p><b>Air pollution</b></p> <ul style="list-style-type: none"> <li>• Any activity that increases the rate of breathing will increase the exposure to pollutants during poor air quality days. This increased exposure is more likely to cause symptoms and worsen asthma.</li> <li>• Exposure to poor air quality occurs during outdoor sports and recreation activities. Activities that increase the rate of breathing include cycling any running based activity such as soccer, box lacrosse, ultimate frisbee, tennis, and football.</li> </ul>	<p>Check air quality forecasts and smog alerts at <a href="http://www.airqualityontario.com">www.airqualityontario.com</a> and <a href="http://www.airhealth.ca">www.airhealth.ca</a>. In general consider modifying plans for outdoor physical activity if the Air Quality Health Index (AQHI) is between four and ten for students with asthma or between seven and ten for the general population. Move planned outdoor activities to well-ventilated indoor sites if air quality is poor.</p> <p>Schools should consider developing policies related to idle-free zones.</p>

Irritants and Sources of Exposure	Steps to Reduce Exposure
<p><b>Physical activity</b></p> <ul style="list-style-type: none"> <li>• Strenuous activities that are aerobic are more likely to cause exercise induced asthma. Examples of physical activities most likely to trigger asthma include: running, lacrosse, soccer, football, basketball, hockey, field hockey, ultimate Frisbee, and tennis.</li> </ul>	<p>The risk of exercise-induced asthma symptoms can be reduced by keeping asthma well controlled. Sometimes a reliever inhaler is prescribed to be taken 10 to 15 minutes before the activity is started.</p>
<p><b>Extremes in weather</b></p> <ul style="list-style-type: none"> <li>• Breathing cold air can make the airways narrow and cause asthma symptoms.</li> <li>• Performing vigorous activity in extremes in weather is more likely to be problematic, especially cold and windy environments.</li> </ul>	<p>During cold weather, encourage students with asthma to cover their face with a scarf or facemask to help warm and humidify the air.</p> <p>Air conditioning and fans are helpful for hot and humid days.</p>
<p><b>Strong Odours</b></p> <ul style="list-style-type: none"> <li>• Art supplies</li> <li>• Cleaning supplies containing bleach or ammonia</li> <li>• Scented products (for example, perfume/ aftershave, air fresheners)</li> <li>• Paint fumes</li> </ul>	<p>Art supplies that release strong odours (such as, chemicals) should be avoided, including acrylic glues, rubber cement, liquid ink, spray adhesives, markers (for example, dry erase, scented, permanent) and oil-based and spray paint.</p> <p>Paint fumes should be avoided. Painting of the school should be completed during breaks. Proper ventilation is important. Notify parents/guardians of plans for indoor painting during the school year.</p> <p>Cleaning supplies and scented products that are environmentally friendly and low scent/odour products are recommended. Schools should consider developing policies related to scent-reduced zones and or fragrance-free or scent-free schools.</p>

**Table 2: Asthma Allergens and Steps to Reduce Exposure**

Allergens and Sources of Exposure	Steps to Reduce Exposure
<p><b>House Dust Mites</b></p> <ul style="list-style-type: none"> <li>• Tiny insects that feed on dead skin cells that are found in the fibres of stuffed chairs, pillows, animals and carpets/rugs.</li> </ul>	<ul style="list-style-type: none"> <li>• Remove carpets, stuffed chairs, upholstered furniture and pillows.</li> <li>• Frequently damp-dust and vacuum daily (use a vacuum with a high-efficiency particulate air (HEPA) filter).</li> <li>• Cleaning should occur after students have left for the day.</li> </ul>
<p><b>Mould</b></p> <ul style="list-style-type: none"> <li>• Spores from mould can become airborne and trigger asthma.</li> <li>• Black spots or white crumbles around windows or on the ceiling and walls are common signs of mould.</li> <li>• High indoor humidity promotes the growth of mould and dust mites.</li> <li>• Exposure to moulds often occurs in indoor arenas and can be more problematic during physical activity, such as hockey, lacrosse, basketball, dance, volleyball.</li> </ul>	<ul style="list-style-type: none"> <li>• Keep indoor humidity less than 50 percent. Humidity can be measured by a hygrometer, available at hardware stores. Dehumidifiers also help to reduce humidity levels.</li> <li>• Report leaks and water-damaged material to environmental services.</li> <li>• Remove water-damaged materials (carpet, carpet padding, ceiling tiles, etc.). Repair leaks and promote air circulation.</li> <li>• Aquariums and humidifiers require regular cleaning and are not encouraged because of the possibility of mould growing in/around them.</li> <li>• Outdoor mould can be found in freshly cut grass and decaying leaves. They are most common in the spring, summer and fall, until after the first frost.</li> <li>• For additional strategies related to indoor air quality, consult Health Canada’s Indoor Air Quality — Tools for Schools Action Kit for Canadian Schools at <a href="http://www.hc-sc.gc.ca/ewh-semt/pubs/air/tools_school-outils_ecoles/index-eng.php">http://www.hc-sc.gc.ca/ewh-semt/pubs/air/tools_school-outils_ecoles/index-eng.php</a>.</li> </ul>
<p><b>Pollen</b></p> <ul style="list-style-type: none"> <li>• Pollen levels are highest from May through September and on sunny, dry, windy days.</li> <li>• Physical activity performed during high pollen count days increases exposure making it more likely to cause asthma symptoms, if they are allergic.</li> </ul>	<ul style="list-style-type: none"> <li>• Keep windows closed on high pollen days.</li> <li>• Monitor pollen counts on your local weather station or go to <a href="http://www.theweathernetwork.ca">www.theweathernetwork.ca</a>.</li> </ul>
<p><b>Pests</b> (mice, rats, cockroaches)</p>	<ul style="list-style-type: none"> <li>• Clean up all food particles.</li> <li>• Follow integrated pest management system guidelines</li> </ul>

Allergens and Sources of Exposure	Steps to Reduce Exposure
<p><b>Food and Food Additives</b></p> <ul style="list-style-type: none"> <li>• Allergies to food and food additives can cause life threatening reactions and are known as anaphylaxis.</li> <li>• Allergies can develop to any food or food additive. The most common food allergies include peanuts, nuts, sesame seeds, milk, shellfish, fish and eggs. Common allergies to food additives include food preservatives (such as monosodium glutamate and sulphites) and food colourings.</li> <li>• A severe food or food additive allergy is known as anaphylaxis.</li> <li>• People with asthma and anaphylaxis are at greater risk of dying from a life threatening reaction.</li> </ul>	<ul style="list-style-type: none"> <li>• Know the food and food additives student is allergic to and the typical response and severity.</li> <li>• As part of Sabrina’s Law in Ontario, school boards are required to have an individualized plan for students with life threatening or anaphylactic reactions, which are the most common for food allergies.</li> <li>• The best preventative step is for the student to avoid exposure to his/her allergen. Strategies used in schools to avoid exposure to food and food additive allergies often vary according to grade level.</li> <li>• Food Allergy Canada has an easy to use and thorough website to guide and support educators in supporting students with food and food additive allergies, which can be accessed at <a href="http://www.foodallergycanada.ca">www.foodallergycanada.ca</a></li> </ul>

## Appendix 2: Managing Asthma Attacks Poster

Visit [lungontario.ca](http://lungontario.ca) to access an AODA-compliant version or to order free copies of The Lung Association - Ontario's Managing Asthma Attacks poster.

# Managing Asthma Attacks

TAKE ACTION	
<p>If <b>any</b> of the following occur:</p> <ul style="list-style-type: none"> <li>• Continuous coughing</li> <li>• Trouble breathing</li> <li>• Chest tightness</li> <li>• Wheezing (whistling sound in chest)</li> </ul> <p>Student may also be restless, irritable and/or very tired.</p>	<p> <b>Step 1: Immediately</b> use fast-acting reliever inhaler (usually a blue inhaler). Use a spacer if provided. </p> <p><b>Step 2:</b> Check symptoms. Only return to normal activity when all symptoms are gone. If symptoms get worse or do not improve within 10 minutes, this is an <b>emergency</b> – follow steps below.</p>
EMERGENCY	
<p>If <b>any</b> of the following occur:</p> <ul style="list-style-type: none"> <li>• Breathing is difficult and fast</li> <li>• Cannot speak in full sentences</li> <li>• Lips or nail beds are blue or gray</li> <li>• Skin on neck or chest sucked in with each breath</li> </ul> <p>Student may also be anxious, restless and/or very tired.</p>	<p> <b>Step 1: Immediately</b> use fast-acting reliever inhaler (usually a blue inhaler). Use a spacer if provided. </p> <p> <b>Call 911</b> for an ambulance. Follow 911 communication protocol with emergency responders. </p> <p><b>Step 2:</b> If symptoms continue, use reliever inhaler every 5-15 minutes until medical help arrives.</p>
<p><b>While waiting for medical help to arrive:</b></p> <ul style="list-style-type: none"> <li>✓ Have student sit up with arms resting on a table (<b>do not</b> have student lie down unless it is an anaphylactic reaction).</li> <li>✓ <b>Do not</b> have student breathe into a bag.</li> <li>✓ Stay calm, reassure the student, and stay by his/her side.</li> <li>✓ Notify parent/guardian or emergency contact.</li> </ul>	

This publication is available in Accessibility for Ontarians with Disabilities Act (AODA) electronic format at [www.on.lung.ca/resources](http://www.on.lung.ca/resources).

**To learn about asthma call The Lung Association Lung Health Information Line at 1-888-344-LUNG (5864) or visit [www.on.lung.ca](http://www.on.lung.ca)**

B R E A T H E  
the lung association





## Appendix 3: Sample Asthma Policy

This sample policy, developed by the Ontario Educational Services Corporation (OESC), can be used by school boards as a starting point to develop their own asthma policies which are required by *Ryan’s Law (Ensuring Asthma Friendly Schools), 2015. Policy/Program Memorandum (PPM) No. 161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools, 2018* also requires school boards to maintain a policy or policies on supporting students with prevalent medical conditions. When developing their policies, school boards should consult with their legal counsel to ensure they are meeting their statutory obligations.

School Board: \_\_\_\_\_

### ASTHMA POLICY

Policy No: \_\_\_\_\_ Date: \_\_\_\_\_ Review Date: \_\_\_\_\_

### POLICY STATEMENT

In accordance with *Ryan’s Law (Ensuring Asthma Friendly Schools), 2015* it is the policy of the \_\_\_\_\_ District School Board to establish and maintain a policy for students diagnosed with asthma.

The safety of students with a medical condition such as asthma is a shared responsibility of the board, school, family, health care provider and community partners.

The policy outlines the board’s commitment to students with asthma.

### Definitions

#### What is Asthma?

According to the Ontario Lung Association, asthma is a very common chronic (long-term) lung disease that can make it hard to breathe.

People with asthma have sensitive airways that react to triggers. There are many different types of triggers, for example poor air quality, mold, dust, pollen, viral infections, animals, smoke and cold air. Symptoms of asthma are variable and can include coughing, wheezing, difficulty breathing, shortness of breath and chest tightness. The symptoms can range from mild to severe and sometimes could be life threatening.

For the purposes of this document, the following words have the following definitions:

#### Emergency Medication

“Emergency Medication” refers to medication that is administered by a staff member to a student at the time of an asthma flare-up, for example, reliever inhaler or stand-by-medication.

## Medication

“Medication” refers to medications that are prescribed by a health care provider and, by necessity, may be administered to a student, or taken by the student during school hours or school related activities.

## Immunity

The Act to Protect Pupils with Asthma states that “No action or other proceeding for damages shall be commenced against an employee for an act or omission done or omitted by the employee in good faith in the execution or intended execution of any duty or power under this Act.”

## Requirements

The board shall:

- Ensure that all students have easy access to their prescribed reliever inhaler(s) medications;
- Identify asthma triggers in classrooms, common school areas and in planning field trips and implement strategies to reduce the risk of exposure;
- Establish a communication plan to share information on asthma to parents/guardians, students, employees and include any other person who has direct contact with a student with asthma;
- Provide asthma education and regular training opportunities on recognizing and preventing asthma triggers, recognizing when symptoms are worsening and managing asthma flare-ups for all employees and others who are in direct contact with students on a regular basis;
- Require that every school principal establish a process to identify students with asthma at time of registration or following diagnosis and gather necessary asthma related information from the parents/guardians and student;
- Require that every school principal develop a Plan of Care for each student diagnosed with asthma, based on the recommendation of the student’s health care provider;
- Require that every school principal maintain a file for each student diagnosed with asthma. The file main contain personal medical information, treatment plans and/or other pertinent information about the student, if that information is obtained with the consent of the student or the parent/guardian, in accordance with applicable legislation, including relevant privacy legislation. This file shall also include current emergency contact information;
- Require that every school principal inform school board personnel and others who are in direct contact on a regular basis with a student with asthma about the contents of the student’s asthma management plan;
- Review asthma policy as part of its regular policy review cycle; and
- Include the asthma policy in the board policies posted on the school and board web sites.

Roles and Responsibilities to implement these policy requirements are in the board’s Administrative Procedures - Asthma Management Plan.

## REFERENCE DOCUMENTS

- Ryan’s Law (Ensuring Asthma Friendly Schools), 2015
- Education Act Section 265 – Duties of Principal
- Education Act Regulation 298 s. 20 – Duties of Teachers

## Appendix 4: Sample Plan of Care

### Student Information

Student Photo (optional)

Student Name:

Date Of Birth:

Ontario Ed #.

Age:

Grade:

Teacher(s):

### Emergency Contacts (List in Priority)

Name:

Relationship:

Daytime Phone:

Alternate Phone:

Name:

Relationship:

Daytime Phone:

Alternate Phone:

Name:

Relationship:

Daytime Phone:

### Known Asthma Triggers

Select all those that apply.

- Colds/Flu/Illness
- Change In Weather
- Pet Dander
- Strong Smells
- Smoke (tobacco, fire, cannabis, second-hand smoke)
- Mould
- Dust
- Cold Weather
- Pollen
- Physical Activity/Exercise
- Other (Specify):
- At Risk For Anaphylaxis (Specify Allergen):
- Asthma Trigger Avoidance Instructions: When Air Quality Health Index (AQHI) is 6 or greater, exercise indoors and limit time outdoors
- Any Other Medical Condition or Allergy?

## Daily/Routine Asthma Management

Reliever inhaler use at school and during school-related activities:

A reliever inhaler is a fast-acting medication (usually blue in colour) that is used when someone is having asthma symptoms. The reliever inhaler should be used (select all those that apply):

- When student is experiencing asthma symptoms (e.g., trouble breathing, coughing, wheezing)
- Other (explain):

Use reliever inhaler [name of medication] in the dose of [include number of puffs here] as needed (maximum 4 times daily).

Spacer (valved holding chamber) provided?

- Yes
- No

Select the type of reliever inhaler that the student uses:

- Airomir
- Ventolin
- Bricanyl
- Other (Specify):

Select the following if true:

- Student requires assistance to access reliever inhaler. Inhaler must be readily accessible.

### Reliever inhaler is kept:

With:

Location:

Other Location:

In locker #:

Locker Combination:

Select the following if true:

- Student will carry their reliever inhaler at all times including during recess, gym, outdoor and off-site activities
- Reliever inhaler is kept in the student's:
  - o Pocket
  - o Backpack/fanny Pack:
  - o Case/pouch
  - o Other (specify):

Does student require assistance to administer reliever inhaler?

- Yes
- No

Student's spare reliever inhaler is kept:

- In main office (specify location):
- Other Location:
- In locker #:
  - o Locker Combination:

## Controller Medication Use at School and During School-Related Activities

Controller medications are taken regularly every day to control asthma. Usually, they are taken in the morning and at night, so generally not taken at school (unless the student will be participating in an overnight activity).

Use/administer:

In the dose of:

At the following times:

Use/administer:

In the dose of:

At the following times:

Use/administer:

In the dose of:

At the following times:

## Emergency Procedures

If any of the following occur:

- Continuous coughing
- Trouble breathing
- Chest tightness
- Wheezing (whistling sound in chest)

(Student may also be restless, irritable and/or quiet.)

### Take Action:

**Step 1:** Immediately use fast-acting reliever inhaler (usually a blue inhaler). Use a spacer if provided.

**Step 2:** Check symptoms. Only return to normal activity when all symptoms are gone.

If symptoms get worse or do not improve within 10 minutes, this is an emergency!

Follow next steps.

If any of the following occur:

- Breathing is difficult and fast
- Cannot speak in full sentences
- Lips or nail beds are blue or grey
- Skin or neck or chest sucked in with each breath

(Student may also be anxious, restless, and/or quiet.)

### This is an emergency:

**Step 1:** Immediately use any fast-acting reliever (usually a blue inhaler). Use a spacer if provided.

Call 9-1-1 for an ambulance. Follow 9-1-1 communication protocol with emergency responders.

**Step 2:** If symptoms continue, use reliever inhaler every 5-15 minutes until medical attention arrives.

While waiting for medical help to arrive:

- Have student sit up with arms resting on a table (do not have student lie down unless it is an anaphylactic reaction).
- Do not have the student breathe into a bag.
- Stay calm, reassure the student and stay by his/her side.
- Notify parent(s)/guardian(s) or emergency contact.

## Healthcare Provide Information (Optional)

*Healthcare provider may include: Physician, Nurse Practitioner, Registered Nurse, Pharmacist, Respiratory Therapist, Certified Respiratory Educator, or Certified Asthma Educator.*

Healthcare Provider's Name:

Profession/Role:

Signature:

Date:

Special Instructions/Notes/Prescription Labels:

*If medication is prescribed, please include dosage, frequency and method of administration, dates for which the authorization to administer applies, and possible side effects.*

This information may remain on file if there are no changes to the student's medical condition.

## Authorization/Plan Review

Individuals with whom this plan of care is to be shared:

Other individuals to be contacted regarding Plan of Care:

Before-School Program:

- Yes
- No

After-School Program:

- Yes
- No

School Bus Driver/Route # (If Applicable):

Other:

Parent/Guardian: [Signature]

Date:

Student: [Signature]

Date:

Principal: [Signature]

Date:

## Appendix 5: Management of Asthma — School Board Implementation Tips

In accordance with *Ryan’s Law (Ensuring Asthma Friendly Schools), 2015* and *Policy/Program Memorandum (PPM) No. 161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools, 2018* school boards must establish and maintain a policy to support students with asthma. The purpose of this resource is to outline activities and implementation tips to create asthma friendly schools at the board level.

### Establish a process to identify students with asthma.

- Add a question to all registration forms that elicits whether or not the student has been told by a health provider that they have asthma and/or uses asthma medication.

### Identifying and supporting a student with asthma is a collaborative effort

- The Plan of Care is a form that help empower and support students with prevalent medical conditions. This form requires participation from the school boards, school staff, educators, parents/guardians and students. *Policy/Program Memorandum (PPM) No. 161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools, 2018* requires that school boards develop a Plan of Care to help identify students with asthma.

### Easy access to asthma medication for students with asthma.

- Ensuring students with asthma have quick and easy access their reliever asthma inhaler (usually a blue inhaler) allows them to treat and relieve their asthma symptoms promptly. Most students age seven years or older are capable of deciding when medication is required and have the skills to administer the medication properly. *For students who are unable to carry their own inhaler, the medication should be available within easy reach, such as the classroom or main office.*

### A process for handling worsening asthma.

- Ensure that the school board has a policy that clearly outlines the process for handling worsening asthma and asthma attacks within your schools.

### A mechanism to identify and reduce common asthma triggers within the schools.

- Advocate and provide support to identify and reduce common asthma triggers in your schools.

### Support for students with asthma to participate in physical activity and play.

- Advocate and support students with asthma to participate in all activities, including physical activities and outdoor play.

### Opportunities for asthma education (such as, school staff, parents/guardians, students and volunteers).

- Advocate and provide support for all members of the school community to participate in asthma education initiatives and asthma awareness activities.

### Collaboration with others (such as, health care providers, public health, parents/guardians and community partners) to create asthma friendly settings.

- Board delegates should meet with administrators and health care professionals to discuss policy changes, current practices and updates on asthma information annually.

## Appendix 6: Management of Asthma — Administrator Implementation Tips

Administrators and school staff play a central role in creating asthma friendly schools. The following implementation tips include activities appropriate for administrators to support asthma friendly schools.

### Establish a process to identify students with asthma.

- Add a question about asthma and asthma medication to all registration forms.

### Identifying and supporting a student with asthma is a collaborative effort

- The Plan of Care is a form that helps empower and support students with prevalent medical conditions. This form requires participation from the school boards, school staff, educators, parents/guardians and students. *Policy/Program Memorandum (PPM) No. 161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools, 2018* requires that school boards develop a Plan of Care to help identify students with asthma.

### Easy access to asthma medication.

- Establish a process that identifies which students can carry and administer their asthma medication.
- Know which students require assistance with storing and taking their medication. Students who are unable to administer their own medication should have it easily accessible. Worsening asthma can happen quickly and easy access to medication is important

### Establish a process for handling worsening asthma.

- Adhere to policy or guideline for a school-wide approach to managing worsening asthma and emergency situations. This policy should be aligned with *PPM 161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools*, a Ministry of Education policy on supporting and empowering students with prevalent medical conditions effective September 1, 2018.
- Display the Ontario Lung Association's Managing Asthma Attacks poster in key locations.
- Ensure that parents/guardians of students with asthma are requested to complete and submit the Plan of Care. This form contains the student's photograph, emergency contacts, information about the student's asthma triggers and reliever medication (including where it's located) and how to recognize and respond to asthma symptoms and emergency situations.

### Identify and reduce common asthma triggers within the school environment.

- Monitor for asthma triggers on an ongoing basis and take action to reduce exposure to asthma triggers whenever possible. For example, advocate for the use of scent-free markers and cleaning products, dust free chalk, etc. Plan for building repairs or cleaning at times that reduce the possibility of exposing students to fumes, dust and other irritants.

### Encourage students with asthma to participate in physical activity and play.

- Advocate and support students with asthma to participate in all activities, including physical activities and outdoor play.

### Provide opportunities for asthma education to teachers, school staff, parents/guardians, students and volunteers.

- At least annually, provide education with regards to identifying and managing worsening asthma, proper use of inhalers and identifying and managing asthma triggers. Consider holding general asthma awareness education sessions for the school community.

### Collaborate with others (such as, health care providers, public health, parents/guardians and community partners) to create asthma friendly schools.

- Identify an individual in the school to act as an asthma resource or Asthma Champion. This person could identify and review new asthma resources and help organize asthma-related activities.

## Appendix 7: Management of Asthma — Teacher Implementation Tips

Open communication between teachers and parents/guardians supports students with asthma. The following implementation tips include activities appropriate for teachers to create/support asthma friendly schools.

### Establish a process to identify students with asthma.

- Know which students in your class have asthma and/or use inhaler medication. Keep copies of important forms for each student with asthma in the classroom to provide easy access for those working in the classroom (for example, volunteers, and occasional teachers).

### Identifying and supporting a student with asthma is a collaborative effort

- The Plan of Care is a form that helps empower and support students with prevalent medical conditions. This form requires participation from the school boards, school staff, educators, parents/guardians and students. *Policy/Program Memorandum (PPM) No. 161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools, 2018* requires that school boards develop a Plan of Care to help identify students with asthma.

### Easy access to asthma medication.

- Encourage students to carry their inhaler medication with them at all times. For students who are not allowed to carry their inhaler, the inhaler medication should be kept in an easily accessible location. Typically, most children age seven years or older are capable of deciding when medication is required and have the skills to administer the medication properly.
- Know which students require assistance to use their inhaler.
- Be prepared to assist a student with asthma to use an inhaler when needed.

### Establish a process for handling worsening asthma.

- Know the school-wide emergency plan for handling worsening asthma. Display the Ontario Lung Association's Managing Asthma Attacks poster in key locations.
- Review the Plan of Care of each student with asthma. This form contains the student's photograph, emergency contacts, information about the student's asthma triggers and reliever medication (including where it's located) and how to recognize and respond to asthma symptoms and emergency situations.

### Identify and reduce common asthma triggers within the school.

- Know the asthma triggers for students with asthma in your class. Take action to reduce exposure to asthma triggers whenever possible.
- Notify parents/guardians well in advance of field trips and identify activities involved. Ensure that reliever inhalers (usually blue) are easily accessible on field trips and that you know how to handle worsening asthma. Bring copies of students' Plan of Care on field trips.

### **Encourage students with asthma to participate in physical activity and outdoor play.**

- Determine if indoor/outdoor triggers exist and if they need to be avoided. Incorporate a warm-up period and a cool-down period with all strenuous physical activity.
- Permit use of reliever inhaler (usually blue) 10 to 15 minutes prior to activity, if directed by the student's health care provider.

### **Provide opportunities for asthma education to school staff, parents/guardians, students and volunteers.**

- Use asthma resources to learn more about handling worsening asthma. Attend educational opportunities provided by the school to learn about asthma.
- Provide opportunities for students to learn about asthma.

### **Collaborate with others (such as, public health, parents/guardians and community partners) to create asthma friendly schools.**

- Inform parents/guardians when students show signs of poorly controlled asthma and worsening asthma.
- Consult with parents/guardians if you have questions about their child's asthma.

## Appendix 8: Management of Asthma — Parents/Guardians of Students with Asthma Implementation Tips

Parents/guardians are responsible for providing the school with up-to-date information about their child's asthma. Information should be provided at the start of each school year/session and when the child's asthma information changes.

Educate your child so that they understand:

- common asthma triggers;
- signs of worsening asthma and when to ask for help;
- the importance of being physically active;
- the importance of carrying medication with them at all times; and
- how to administer medication.

The following includes things you can do to assist in the management of your child's asthma while at school:

### Identify that your child has asthma.

- Tell the school and the teacher that your child has asthma. When the school registration form asks about health information, inform the school about your child's asthma and use of asthma medicines. Consider having your child wear a MedicAlert™ bracelet or similar device to identify that they have asthma.

### Identifying and supporting a student with asthma is a collaborative effort

- The Plan of Care is a form that help empower and support students with prevalent medical conditions. This form requires participation from the school boards, school staff, educators, parents/guardians and students. *Policy/Program Memorandum (PPM) No. 161: Supporting Children and Students with Prevalent Medical Conditions (Anaphylaxis, Asthma, Diabetes, and/or Epilepsy) in Schools*, 2018 requires that school boards develop a Plan of Care to help identify students with asthma.

### Ensure your child has easy access to asthma medication.

- Your child needs to have easy and quick access to their inhaler. For younger children, this typically involves having the quick relief inhaler in the classroom and for older children, carrying their own inhaler. Find out about the school's procedure so that your child has easy access. This typically involves the completion of forms, such as the Plan of Care and an Authorization for Medication Administration form. Ryan's Law requires schools to provide easy access to asthma inhalers when the necessary forms are completed and with parent/guardian permission for those less than 16 years of age.
- If your child will be carrying and administering the inhaler, ensure that your child:
  - has the reliever inhaler (usually blue) accessible at all times (the inhaler needs to be with the student every day at all times);
  - knows when and how to use the inhaler correctly;
  - knows how to respond and the steps to take if the reliever medication does not make them feel better or isn't working;
  - does not share the medication with friends;

- knows when the medication is empty and a new one is needed;
  - tells the teacher every time they take the medication;
- It is the parent's/guardian's responsibility to ensure that your child has dedicated reliever inhaler(s) for school use that are not past their expiration date. Some students may need more than one additional inhaler for school so that an inhaler can be kept in the locker, backpack and gym bag. All inhalers need to be clearly labelled with the student's name.
- If your child needs help using the inhaler, provide information on their Plan of Care, and include information about how to give the inhaler medications correctly and review the technique with school staff caring for your child. Prepare your child for field trips and discuss any issues with the supervising teacher. Remember to send the reliever medication (usually blue) for your child to take on the field trip. Ensure that your child knows how and when to use asthma medication safely.

### **Establish a process for handling worsening asthma.**

- Complete and return the Plan of Care to the school. This form contains your child's photograph, emergency contacts, information about your child's asthma triggers and reliever medication (including where it's located) and how to recognize and respond to asthma symptoms and emergency situations. Pictures should be recent photographs of the head and shoulders, approximately 2 x 2.5" (this form will be posted in the staff room/health room and /or where appropriate, given parent/guardian permission, and in the supply teacher folder to identify students to staff).
- Provide the teacher/coach/recreation leader with a copy of the Plan of Care so that they will know about your child's triggers, medications and what to do when the asthma gets worse.
- Review the Plan of Care and measure to prevent and handle asthma symptoms with your child.

### **Identify and reduce common asthma triggers for your child within the school.**

- Talk to teachers about the triggers that affect your child. Make sure that the Plan of Care has identified your child's asthma triggers.

### **Encourage your child to participate in physical activity and play.**

- Talk to your child about the benefits of participating in physical and play. Do not let your child/youth's asthma be a barrier to being active.

### **Provide opportunities for asthma education (such as, school staff, other parents/guardians, students and volunteers).**

- Be an Asthma Champion and talk to school staff about how to become asthma friendly.

### **Collaborate with others (such as, health care providers, public health, other parents/guardians and community partners) to create asthma friendly schools.**

- Work with your asthma care provider to ensure that your child's asthma is under good control, that they have a quick relief inhaler for school use and that they have the asthma knowledge and skills to successfully manage their asthma at school.

## **Appendix 9: Management of Asthma — Student with Asthma Implementation Tips**

Students with asthma need to understand how to manage asthma at school. Students who learn how to manage and control their asthma should be able to participate in physical activity and play.

### **Identify yourself as a student with asthma.**

- On your school registration forms indicate that you have asthma and/or use asthma medicines. Also, let your principal, teachers and coaches know that you have asthma. It is also a good idea to let your close friends know that you have asthma.
- Tell supply/substitute teachers that you have asthma, what to do if your asthma gets worse and where your medication is kept.

### **Ensure you have easy access to your asthma medication.**

- Have your reliever inhaler (usually blue) with you at all times or know where it is kept and how to get it quickly.
- Know how and when to use your asthma medication safely by using the following guidelines:
  - Make sure your medication has your name on it.
  - Do not share your medication with friends.
  - Know when your medication is empty and you need a refill.
  - Tell your parent/guardian and teacher every time you take your medication.
  - Tell your teacher if you are uncomfortable with taking your own medication and need help.

### **Establish a process for handling worsening asthma.**

- Talk with your teachers and school personnel about your asthma and how it is managed. Tell your teacher when your asthma is bothering you.
- Provide a Plan of Care to your principal/teachers/coach/recreation leader so they will know about your triggers, medications and what to do when your asthma gets worse.

### **Identify and reduce common asthma triggers within the school.**

- Know what triggers your asthma (what makes your asthma worse) and have a plan for handling your asthma triggers.
- Let your teachers and coaches know your asthma triggers. If you have food allergies, make sure that you also talk to the cafeteria and lunch room staff about your allergies.

### **Participate in physical activity and play.**

- Do not let your asthma get in your way of being physically active or enjoying outdoor play. If asthma symptoms start when you are active, stop the activity and take your reliever inhaler. Only return to your activity when fully recovered.

### **Engage in asthma education.**

- Learn about asthma by attending asthma education programs, seeing your asthma health care provider on a regular basis, and checking out [www.asthmakids.ca](http://www.asthmakids.ca).

### **Collaborate with others (such as, health care providers, public health, parents/guardians and community partners) to create an asthma friendly school.**

- Talk to your teachers, coaches, health care providers and parents/guardians about your asthma and how you are feeling and how often you need to use your reliever inhaler.

## Appendix 10: Additional Asthma Resources for Schools

### Ophea Asthma Education Resources

The following free resources are available from Ophea at [www.asthmafriendly.ca](http://www.asthmafriendly.ca).

Managing Asthma in Our Schools video

Asthma and Physical Activity: What Physical Educators and Coaches Need to Know

Creating Asthma Friendly Child Care Centres

Creating Asthma Friendly Environments for Children and Youth

The Basics of Asthma, Allergies, and Anaphylaxis Fact Sheet

Implementing Ryan's Law: Ensuring Asthma Friendly Schools e-Learning Module

### Community Resources

Food Allergy Canada

[www.foodallergycanada.ca](http://www.foodallergycanada.ca)

Asthma Canada

[www.asthma.ca](http://www.asthma.ca)

[www.asthmakids.ca](http://www.asthmakids.ca)

MedicAlert Foundation of Canada

[www.medicalert.ca](http://www.medicalert.ca)

Health Canada

[www.hc-sc.gc.ca/index-eng.php](http://www.hc-sc.gc.ca/index-eng.php)

The Ontario Lung Association

[lungontario.ca](http://lungontario.ca)

[www.kidsasthma.ca](http://www.kidsasthma.ca)

Ontario Ministry of Education

[www.edu.gov.on.ca/eng/](http://www.edu.gov.on.ca/eng/)

Ontario Ministry of the Environment and Climate Change

[www.airqualityOntario.com](http://www.airqualityOntario.com)

The Weather Network

[www.theweathernetwork.ca](http://www.theweathernetwork.ca)

## References

- i. Cicutto, L., To, T., & Murphy, S. (2013). A randomized controlled trial of a public health nurse delivered asthma program to elementary schools. *Journal of School Health*, 83, 876–884.
- ii. Cicutto, L., Conti, E., Evans, H., Lewis, R., Murphy, S., Rautiainen, K. C., Sharrard, S. (2006). Creating asthma friendly schools: A public health approach. *Journal of School Health*, 76(6), 255–258.
- iii. Cicutto, L., To, T., & Murphy, S. (2013). A randomized controlled trial of a public health nurse delivered asthma program to elementary schools. *Journal of School Health*, 83, 876–884.
- iv. Cicutto, L., Conti, E., Evans, H., Lewis, R., Murphy, S., Rautiainen, K. C., Sharrard, S. (2006). Creating asthma friendly schools: A public health approach. *Journal of School Health*, 76(6), 255–258.
- v. SickKids'. Asthma Prevalence Crude Rates. 2018. Retrieved from [http://lab.research.sickkids.ca/oasis/wp-content/uploads/sites/6/2018/07/prevrt\\_upto2016.pdf](http://lab.research.sickkids.ca/oasis/wp-content/uploads/sites/6/2018/07/prevrt_upto2016.pdf)
- vi. Ontario Asthma Surveillance Information System (OASIS). Retrieved from: <http://www.sickkids.ca/Research/OASIS/>.
- vii. Basch, C. E. (2011). Healthier students are better learners: A missing link in school reforms to close the achievement gap. *Journal of School Health*, 81(10), 593–598.
- viii. Asthma Canada. Breathe easy physical activity guide. Retrieved from: <http://asthma.ca/pdfs/ExerciseGuideEN.pdf>.
- ix. Cicutto, L., To, T., & Murphy, S. (2013). A randomized controlled trial of a public health nurse delivered asthma program to elementary schools. *Journal of School Health*, 83, 876–884.



