

Appendix L

Sample Management of Asthma Protocol

Coaches should be familiar with their school board's and school's asthma policy/protocol.

Asthma: Definition, Symptoms

Asthma is a chronic inflammatory disease of the airways in the lungs. Inflammation in the airways makes the lungs more sensitive to substances in the 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. Physical activity is a common asthma trigger in children and youth. Exposure to other common asthma triggers can occur during physical activity and steps should be taken to reduce exposure to:

- extremes in weather (cold and hot);
- poor air quality;
- dusty gym mats;
- pollen (trees, grasses, flowers, weeds);
- mould (found in decaying leaves, water-damaged areas, areas around swimming pools and skating rinks); and
- cleaning products.

Asthma Medication at School (Reliever Inhaler)

Students with asthma need a reliever medication inhaler and take it as prescribed by their doctor. The medication provides quick relief from asthma symptoms.

Students are to carry their own inhaler medication with them at all times. For students who are not carrying their inhaler (e.g. due to age, maturity, parental preference, or location of activities in the gym, outdoors and/or off school site) the inhaler must be in a location where the students have immediate access.

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. Exercise-induced asthma symptoms (coughing, wheezing, trouble breathing) can start 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. Exercise-induced asthma is more commonly experienced when physical 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.

With good control of asthma and a warm up, most students with asthma will not have trouble being physical active. If a student experiences exercise-induced asthma symptoms, then the use of the reliever inhaler will reverse or relieve the symptoms. Students who repeatedly experience exercise-induced symptoms should talk to their doctor for treatment strategies to allow for full participation. For some students, their doctor will advise them to take the reliever inhaler 10-15 minutes before starting the physical activity. For students identified with exercise-induced asthma, the teacher/coach is to check the student's Asthma Management Plan for specific information to support the students' full participation or have a conversation with the student's parent/guardian to learn about the student's asthma.

Physical Activity and Students with Asthma

Physical activity is part of a healthy lifestyle, and asthma should generally not be used as an excuse to avoid participating in physical activity. Typically, students with asthma can participate in physical activity similar to students without asthma. The following strategies support students with asthma to participate in physical activity.

- The student should NOT participate in physical activity if s/he is already experiencing asthma symptoms.
- Ensure a slow warm-up has occurred before activities requiring sustained exertion.
- Be aware of potential asthma triggers in the area and remove the student from triggers.
- 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 and air quality forecasts and smog alerts at www.airqualityontario.com.
- Have parents/guardians inform staff of modifications or considerations for participating physical activity.
- Notify parents/guardians if the student is not able to fully participate in physical activity because of asthma symptoms; this can be a sign of poorly controlled asthma that needs to be followed-up with their health care provider.

Strategies for Managing an Asthma Attack

- If the student starts having asthma symptoms after starting physical activity, have him/her 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, s/he 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, contact the parents 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 outlined below in the Ontario Lung Association's Managing Asthma Attacks poster to help identify and treat an asthma emergency.

Managing Asthma Attacks

ASTHMA PLAN OF ACTION

MILDER SYMPTOMS	ASTHMA EMERGENCY
<p>If <u>any</u> of the following symptoms occur:</p> <ul style="list-style-type: none">• Constant coughing• Trouble breathing• Chest tightness (like a tight band around chest)• Wheezing (whistling sound in chest)	<p>If <u>any</u> of the following symptoms occur:</p> <ul style="list-style-type: none">• Breathing is difficult and fast• Difficulty speaking• Lips or nail beds are blue or gray• Skin on neck or chest sucked in with each breath <p>Person may also be anxious, confused or tired.</p>
<p>Step 1:</p> <p>Immediately use fast-acting reliever inhaler (usually blue).</p> <p>Check symptoms. Only return to normal activity when all symptoms are gone.</p>	<p>Step 1:</p> <p>Call 911 for an ambulance</p> <p>Wait for ambulance - Do not drive person to hospital</p>
<p>Step 2:</p> <p>If symptoms get worse or do not improve within 10 minutes, this is an emergency - immediately follow these steps.</p>	<p>Step 2:</p> <p>Immediately use fast-acting reliever inhaler (usually blue).</p> <p>Continue to use reliever inhaler every 5-15 minutes until medical help arrives.</p>
<p>While waiting for medical help to arrive:</p> <ul style="list-style-type: none">✓ Have person sit up with arms resting on a table (do not have person lie down unless it is a life threatening allergic event)✓ Stay calm, reassure and stay with the person✓ Notify parent/guardian or emergency contact	
<p>To learn about asthma call The Lung Association's Lung Health Information Line at 1-888-344-LUNG (5864) or visit www.on.lung.ca</p>	

Resources

For more information and to order resources designed to increase the skills and knowledge of educators about asthma management in schools visit www.ophea.net/asthma. For more asthma information and resources and to order or download copies of the Managing Asthma Attacks poster visit www.on.lung.ca.