



# **ASTHMA MANAGEMENT**

## **EXERCISE INDUCED BRONCHOSPASM (EIB)**

Exercise induced bronchospasm is a sudden narrowing of the airways in response to vigorous exercise. EIB may occur in some individuals who have no pre-existing diagnosis of asthma. Sports requiring short bursts of energy (baseball, football, gymnastics) usually have a lower incidence of EIB than those with continuous activity (soccer, basketball, long distance running, cycling). Exercise in cold air (hockey, cross country skiing) further increases the likelihood of EIB.

### **SIGNS AND SYMPTOMS OF EIB**

#### **MOST OBVIOUS SYMPTOMS OF EIB**

- Wheezing
- Prolonged shortness of breath (SOB)
- Tightness in chest
- Coughing
- Extreme fatigue
- Chest pain

#### **HARDER TO NOTICE SYMPTOMS OF EIB**

- Chest congestion/frequent colds
- Cannot keep up with others
- Sensitivity to cold air
- Dizziness
- Feeling "winded"
- Getting tired very easily
- Frequent stomach aches
- Symptoms within 20 minutes of exertion

#### **SYMPTOMS OF SERIOUS ASTHMA EMERGENCY**

- Struggling to breathe
- Rescue inhaler DOES NOT help
- Cannot speak/finish sentences
- Sucking in skin above breastbone
- Pale, grey and/or sweating profusely between ribs
- Nostrils flaring Out
- Fainting
- Severe fatigue
- Blue lips and nails
- Unconsciousness

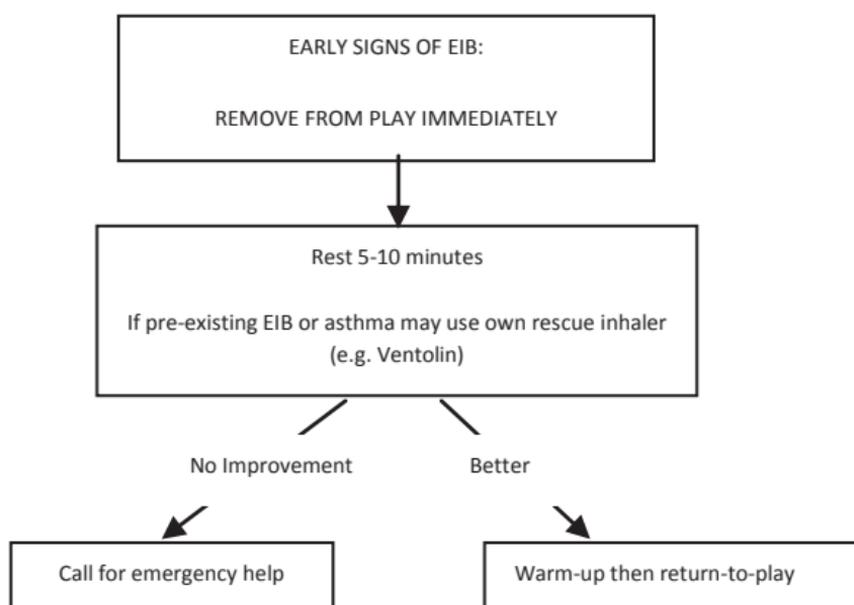
### **SUGGESTIONS TO PREVENT OR LESSEN**

1. Asthma must be under control prior to exercise (no coughing, shortness of breath, wheezing, etc.) and no common cold, flu or other respiratory infections (wheeze, cough, SOB present within 20 minutes of activity due to cold, dry air)
2. Athletes suffering from EIB may use a short acting 2 agonist such as salbutamol (Ventolin) 10-15 minutes before exercising. These medications should be kept close to athlete at all times in case of emergency
3. Avoid training when air quality is poor or during temperature extremes (i.e. smoggy, dry, cool, pollen)
4. Use facemasks and/or 2 agonists when avoidance of practice or competition is not possible
5. Proper use of the REFRACTORY PERIOD: a 5-10 minute warm-up consisting of 80-90% of maximum physical workload 10-15 minutes before competition or practice may decrease effects of EIB for up to 3 hours.
6. Taper down workouts gradually DO NOT STOP ABRUPTLY

### **BANNED OR PERMITTED?**

2- agonists and inhaled steroids are commonly used in EIB. Some of these are banned, some are permitted, and some require a Therapeutic Use Exemption. The World Anti-Doping Agency (WADA) and the Canadian Centre for Ethics in Sport (CCES) update the list of prohibited medications regularly. Status of medications can change and must be verified at regular intervals.

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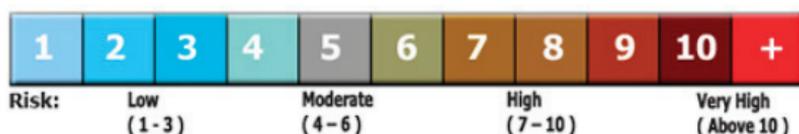


- \* Anytime athletes symptoms return, remove from play and restart process
- \*\* Anytime symptoms worsen during rest, contact EMS 911 IMMEDIATELY

## AIR QUALITY HEALTH INDEX

Air pollution is a key trigger of asthma and associated allergies. Evidence suggests that air pollution is a key trigger for its exacerbation. Extensive studies have shown that increases in air pollution result in a rapid increase in the number of hospitalizations due to asthma.

The Government of Canada and its partners have launched a new national Air Quality Health Index (AQHI) as a tool to better plan against the harmful effects of air pollution, particularly for those who may conduct strenuous physical activity outdoors – such as athletes with EIA/EIB/chronic asthma.



The AQHI is a web-based scale which describes a local reading of air quality as it relates to your health. You can use readings and forecasts to reduce risks to athletes who may suffer from EIB/chronic asthma.

The AQHI reading describes a number between 1 and 10+. The greater the number, the higher the level of air pollution, and the greater the associated health risk. Alongside the AQHI are health messages which help explain the index and provide recommendations on how to adjust your outdoor activity.



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