

Air Pollution and **SPORT SAFETY**



Sport organizations are responsible for ensuring the **safety** of sport participants, including athletes, spectators, coaches, and officials. Sport safety can be affected by **air pollution** levels.

What is air pollution?

Air pollution is a mixture of gases, particles and other chemicals that can adversely affect human health. Key outdoor air pollutants include:

- Ground-level Ozone (O3)
- Nitrogen Dioxide (NO2)
- Particulate Matter (PM2.5)

How does air pollution affect human health?

Air pollution can **negatively affect health** leading to:



Difficulties breathing



Worsening of chronic breathing diseases



Irritated lungs and airways

In Canada, air pollution comes from:



Agriculture



Electricity generation



Forest fires



Construction



Traffic



Oil and gas industries



Factories



Wood burning

Who is at risk?

Everyone experiences health issues on days when the air quality is poor, but some groups of individuals are at **greater risk** than others. These individuals include:

- Seniors, pregnant people, infants and young children
- People living near sources of air pollution such as busy roadways
- People with an existing illness or chronic health condition
- **People engaging in outdoor physical activity, such as sport participants**



Did you know?

Sport participants are at increased health risk because they breathe deeply and rapidly when they are exercising. The more heavily a person breathes, the more air pollutants that person will inhale.

Increased exposure to air pollutants = increased health risk

Reduce exposure to air pollution

- Monitor local air quality alerts and follow public health advice regarding the safety of outdoor exercise
- Schedule outdoor practices and games **early in the morning** or **later in the evening** to avoid exercising during rush hour traffic
- Choose outdoor practice and game locations away from major roadways to avoid traffic emissions
- When air quality is poor, postpone outdoor sports activities or, if possible, carry out the activity indoors



Be air aware

The air pollution levels in Canada are generally low, but there are times when air pollution levels rise, like during wildfire and extreme heat events. Check the **Air Quality Health Index (AQHI)** at AirHealth.ca or through the **WeatherCAN app** to learn about the air quality in your area.