

# 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)

## In Canada, air pollution comes from:



Agriculture

Electricity generation



Forest fires

Construction



Traffic

Oil and gas industries



Factories

Wood burning

## 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

## 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](http://AirHealth.ca) or through the **WeatherCAN app** to learn about the air quality in your area.