

# Air Quality and Healthy Active Travel

Understanding the connection and use of the Air Quality Health Index tool

#### Did you know?

Transportation accounts for about ¼ of Canada's greenhouse gas emissions and is a major contributor to smog in urban areas.

You can play a part in reducing air pollution —

#### WALK

1 car in 5 travels less than 1 kilometre: an average person can walk 1 kilometre in 10 minutes.

#### BIKE

Many car trips are less than 3 kilometres: an average person can cycle 3 kilometres in under 15 minutes.

Avoiding driving just 15 kilometres every week eliminates about 213 kilograms of carbon dioxide emissions a year.

A full public transit bus takes 40 to 60 cars off the road.

If a million Canadians worked from home just one day every year, we could eliminate about 250 million kg of emissions and 100 million litres of fuel.

## Air Quality: A Definition

Clean air is essential to maintaining the delicate balance of life on this planet — not just for humans, but wildlife, vegetation, water and soil. Poor air quality is a result of a number of factors, including emissions from various sources, both natural and "human-caused." Poor air quality occurs when pollutants reach high enough concentrations to endanger human health and/or the environment. Our everyday choices, such as driving cars and burning wood, can have a significant impact on air quality.

## Indoor Air Quality

Air pollution isn't only an outdoor problem. The air in enclosed spaces such as homes, schools or workplaces, private motor vehicles and school buses can also be polluted both from pollutants that have seeped in from the outdoors and those emitted from indoor sources. In fact, some kinds of air pollution can be worse indoors than outdoors, such as tobacco smoke, mould, and chemicals released from synthetic fabrics, furnishings and household products. Indoor air quality is important, since Canadians spend about 90 percent of their time inside.

### What Is The Air Quality Health Index (AQHI)?

This is a Government of Canada national tool designed to help you understand what the outdoor air quality around you means to your health. It is an easy to read scale, similar to a UV index, that is advertised in media, on The Weather Network, on websites and is available as an app on a portable device such as a smart phone. This empowers individuals in to protect themselves and improve their quality of life by enjoying the outdoors - because they know the air quality measurement for that hour and the forecast for that night and the next day.

The table below shows health messages associated with each AQHI category. It is important to keep in mind that walking, cycling or rollerblading to amenities, school or afterschool destinations is a healthy routine for families.

**95.4% of the time (2010 data) the AQHI is Iow.** When the reading is low it's the perfect time to get out and enjoy your favourite activities like walking, biking and roller blading. If the number is higher, people should watch for symptoms, particularly people at risk. Listen to your body and know when to take it easy.

	Health Risk	Air Quality Health Index	Health Messages	
			At Risk Population*	General Population
	Low Risk	1 - 3	<b>Enjoy</b> your usual outdoor activities.	<b>Ideal</b> air quality for outdoor activities.
	Moderate Risk	4 - 6	<b>Consider</b> reducing or rescheduling strenuous activities outdoors if you are experiencing symptoms.	<b>No need to modify</b> your usual outdoor activities unless you experience symptoms such as coughing and throat irritation.
	High Risk	7 - 10	<b>Reduce or reschedule</b> strenuous activities outdoors. Children and the elderly should also take it easy.	<b>Consider</b> reducing or rescheduling strenuous activities outdoors if you experience symptoms such as coughing and throat irritation.
	Very High Risk	Above 10	<b>Avoid</b> strenuous activities outdoors. Children and the elderly should also avoid outdoor physical exertion.	<b>Reduce or reschedule</b> strenuous activities outdoors, especially if you experience symptoms such as coughing and throat irritation.

\* Unsure if you are at risk? Consult www.airhealth.ca to help you determine if you are at risk from air pollution.





www.ontarioactiveschooltravel.ca





#### Did you know?

You can reduce the impact of air pollution on your health by exercising less intensely: try walking instead of jogging and taking more breaks.

Canada is the 2nd highest per capita emitter of greenhouse gases in the world, and our emissions are growing by 1.5 % every year.

Ten seconds of idling can use more fuel than turning off the engine and restarting it.

The poor and disadvantaged in our society may be more at risk as they often live in neighbourhoods close to major highways and industry.

Climate change results in more frequent and severe heat waves, which make smog and air pollution worse.

You can plant trees to fight air pollution: their leaves trap airborne particles, which are then washed away by the rain.

#### Active Travel = A Healthy Person

Walking helps all members of your family reduce the onset of chronic disease by maintaining bone strength, lung capacity and a healthy body weight. The World Health Organization (WHO) reports the risk of physical inactivity for reduced life expectancy far outweighs that associated with air pollution.

Local journeys can be part of a daily routine that provides an opportunity for family members to fit in the 60 minutes per day of physical activity as recommended by Health Canada. Walking can be part of a longer journey too, when transit is used for work, leisure and school. Studies have linked better test scores with physically active children, and their outdoor activity is a far richer experience to that of being a passenger in a family vehicle.

#### Your Choice of Travel Does Make a Difference

The AQHI helps gauge air quality as is affected by a combination of factors including weather systems pollutants; forest fires, wood stove use, industrial emissions and private motor vehicle emissions (which in some areas is the biggest effect on air quality). Choosing not to drive and walking instead maybe the very best direct help you can personally make to keep the air clean.

# Reduce the Amount of Vehicle Traffic at the School Site

This helps small children with developing lungs stay healthy and creates a safer place for walkers and cyclists. Resources to help this goal are at **www.saferoutestoschool.ca** 

#### Have an Idle-Free Education Campaign

This helps the environment and a child's growing lungs. At www.hastebc.org there is a student-friendly MyTravel emissions calculator and an anti-idling-cookbook that contains national and international education resources.

#### Staying Safe

Choosing to walk or bike along a quieter vehicle traffic route is safer, lessens noise pollution exposure, and protects small children, particularly those in strollers who are closest to the level of a vehicle's exhaust pipe. Streets with boulevards that separate sidewalks from heavy motor vehicle traffic are safer and neighbourhods with plants and trees help clean the air.

#### Best Routes to School

Using School Travel Planning to prepare for and develop a network of best routes to school assists the school community and all residents. Engaging stakeholders to work together can help:

- Provide safe walking and cycling paths separated from heavy traffic routes

- Ensure schools, play and public gathering areas exist away from air-pollution sources

- Contribute to a liveable community for children, families, seniors and all residents.



95.4% of the time (2010 data) air quality across Canada is at Low Risk 1 -3. Everyone, **enjoy your usual outdoor activities.** 

When the AQHI level indicates a high risk or greater, above 7, then children and the elderly should start to take it easy outdoors, they should reduce strenuous activity outdoors.

People with heart or breathing problems are at greater risk. Follow your doctor's usual advice about exercising and managing your condition.

To find your local AQHI visit www.airhealth.ca and click on 'Your Local AQHI Conditions'.

This fact sheet was compiled with information from: Environment Canada, Health Canada, Province of British Columbia, Province of Ontario and Green Communities Canada





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