

The Air Quality Health Index & 20/20 The Way to Clean Air

Protecting Your Health and Reducing Air Pollution

www.airhealth.ca

In this presentation...

- **Air pollution**
(What it is, where it comes from and how it affects you)
- **Air Quality Health Index**
(Protect yourself and others)
- **20/20 The Way to Clean Air Campaign**
(Help improve air quality)

Air Pollution – What is it?

- Air is considered polluted when it contains one or more substances in amounts harmful to people and plants
- Air pollutants come from the burning of fossil fuels, such as oil, gas, diesel and coal
- It is a year-round problem



Air Pollution – Some Definitions

Smog: A mixture of pollutants in the air that looks like a brown haze

Ground-level ozone (O₃): The main component of smog that is formed by chemical reactions in the presence of sunlight and heat

Particulate Matter (PM): Mixture of tiny airborne particles that can be inhaled deep into the lungs

Nitrogen Dioxide (NO₂): Gas that contributes to the formation of O₃ and PM

Sources of Air Pollution

- Cars and trucks are the biggest sources
- Coal-fired electricity generation stations in Ontario and United States
- Natural gas & oil to heat and cool buildings
- Industrial processes



Air Pollution and Health

- Air pollution is linked to 5,900 premature deaths and thousands of hospitalizations each year (Judek et al., 2004).

Plus:

- Makes heart problems, asthma, allergies and bronchitis worse
- Irritates eyes, nose and throat
- Difficult for healthy lungs to work well



Air Pollution and Climate Change

- Climate change refers to a long-term change in average weather conditions over time.
- Smog and air pollution levels often increase in warmer weather so climate change is expected to worsen this problem
- In Toronto, research has shown that the number of deaths linked to air pollution could go up by 20% in 2050 partly because of higher temperatures (Cheng et al., 2005)

Some People are More Sensitive to Air Pollution

Who are they?

- Young children
- The elderly (seniors)
- People with asthma
- People with heart and lung conditions
- Diabetics
- People who work or exercise outdoors



How can we take action?

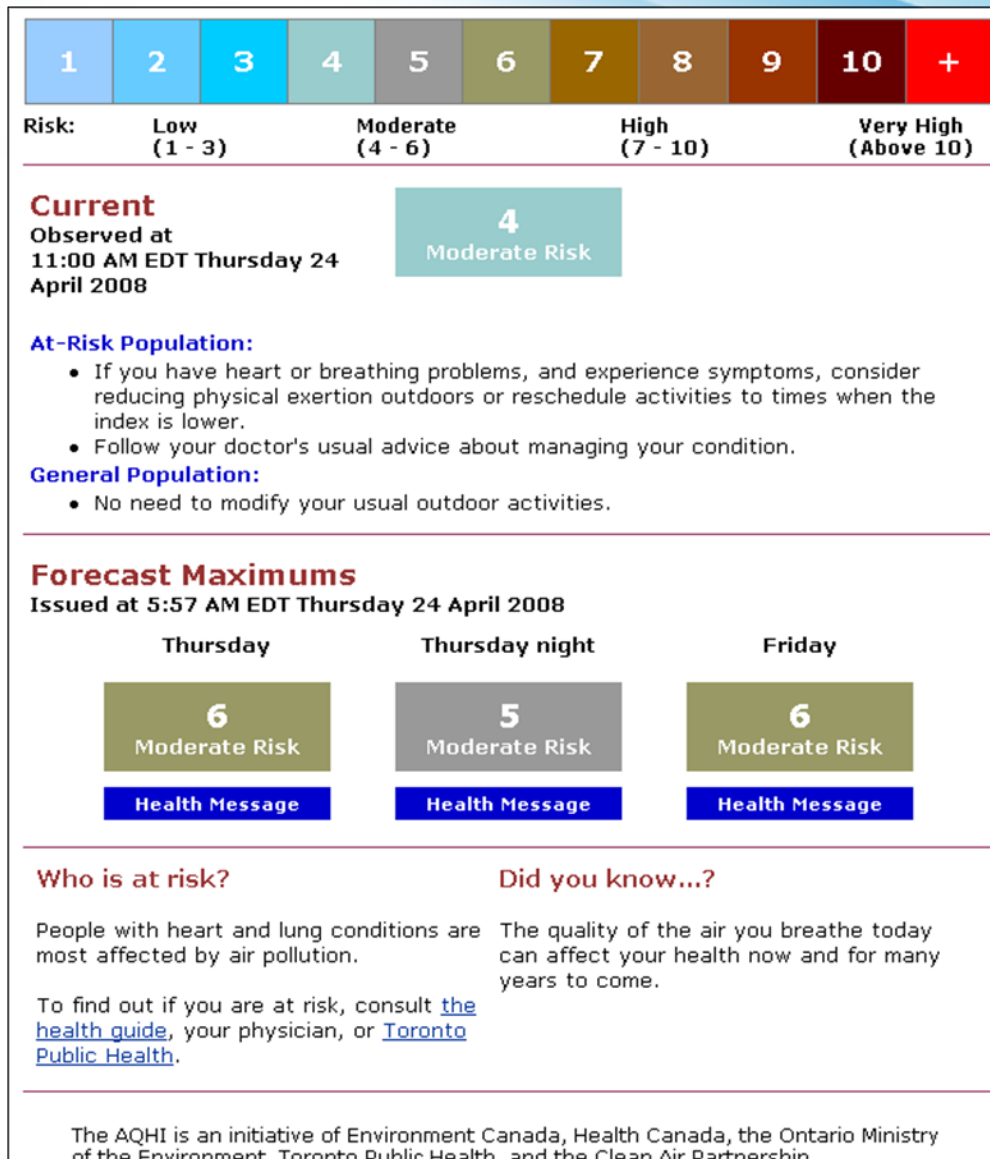
1. Protect our health by using the **Air Quality Health Index**; and
2. Learn how to pollute less with **20/20 The Way to Clean Air** campaign

What is the Air Quality Health Index?

- An index that measures the health risks associated with local air pollution
- Measures three pollutants (O_3 , $PM_{2.5/10}$, NO_2)
- AQHI values are updated hourly and an air quality forecast is provided for later that day and the next one

What it Looks Like

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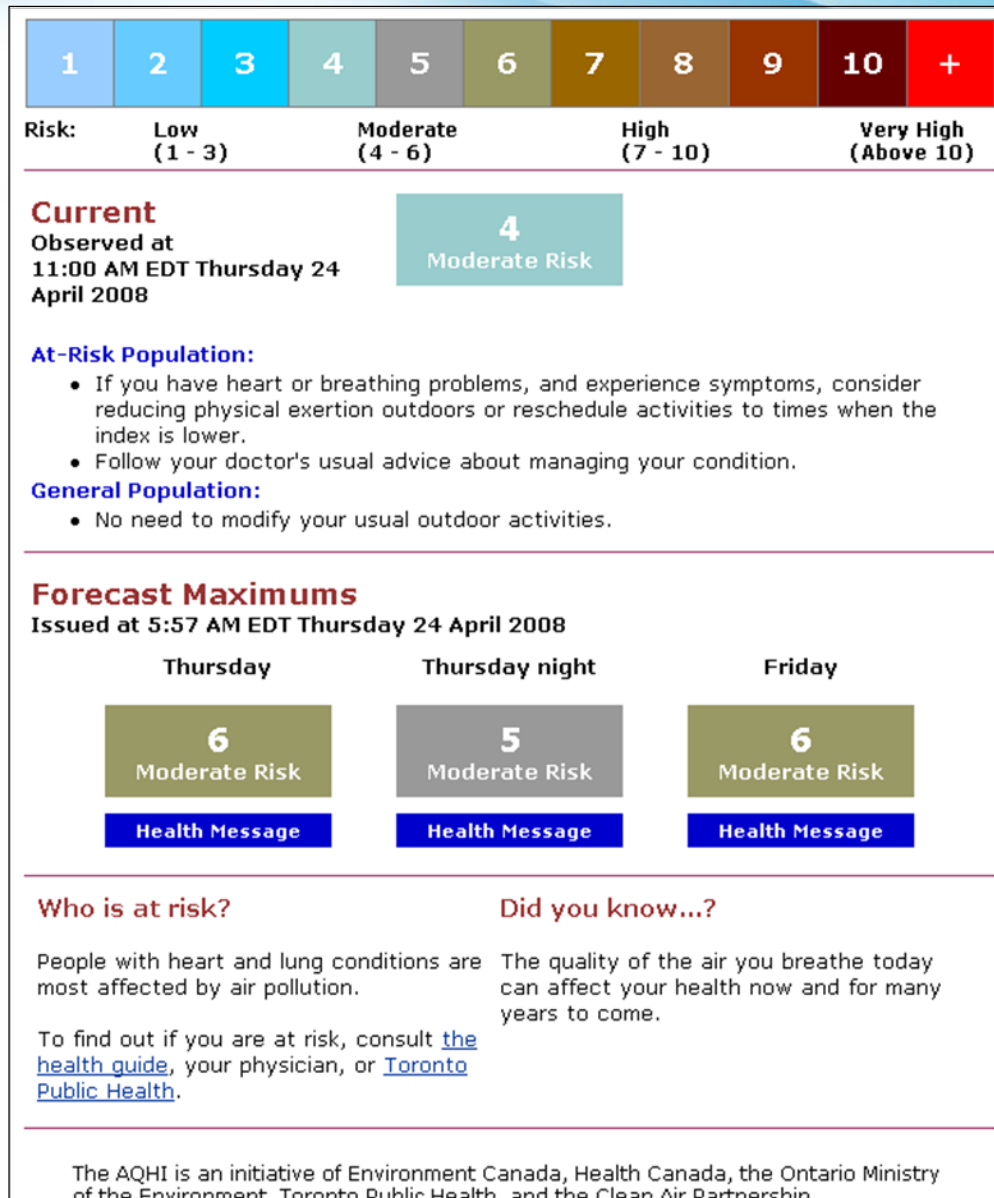
What do the numbers mean?

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

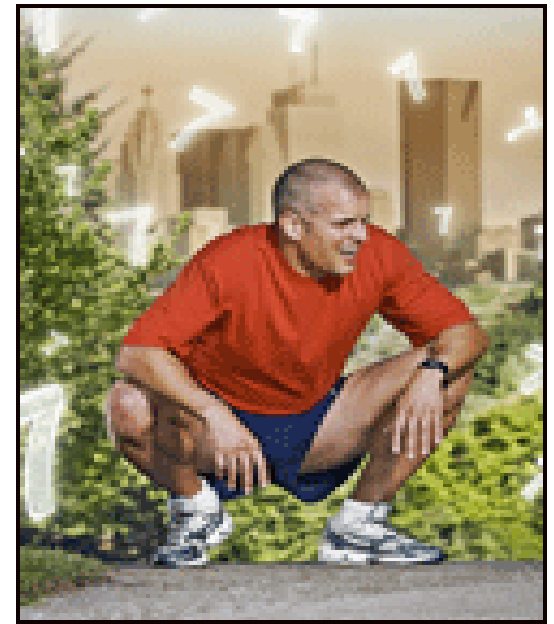
*People with heart or breathing problems are at greater risk

How to Use the Air Quality Health Index

www.airhealth.ca



Which personal daily activities can you use the Air Quality Health Index to plan for?



Where can you find the Air Quality Health Index?

Homepage: www.airhealth.ca



The screenshot shows the Environment Canada website. At the top, there is a green banner with a red maple leaf and the text "Environment Canada" and "www.ec.gc.ca". Below this is a navigation bar with links for "Français", "Home", "Contact Us", "Help", "Search", and "canada.gc.ca". The main content area is titled "Air Quality Health Index" and includes a description of the AQHI tool. A sidebar on the left contains a menu with options like "Air Quality", "Air Quality Health Index", "About the AQHI", "Your Local AQHI Conditions", "Are You At-Risk?", "How Can You Improve Air Quality?", "AQHI in Action!", "Air Quality and Weather", "FAQ", and "Learn More". Three large icons are displayed: an open book, a map of Canada, and three stylized human figures.

Environment Canada
www.ec.gc.ca

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Air Quality Health Index

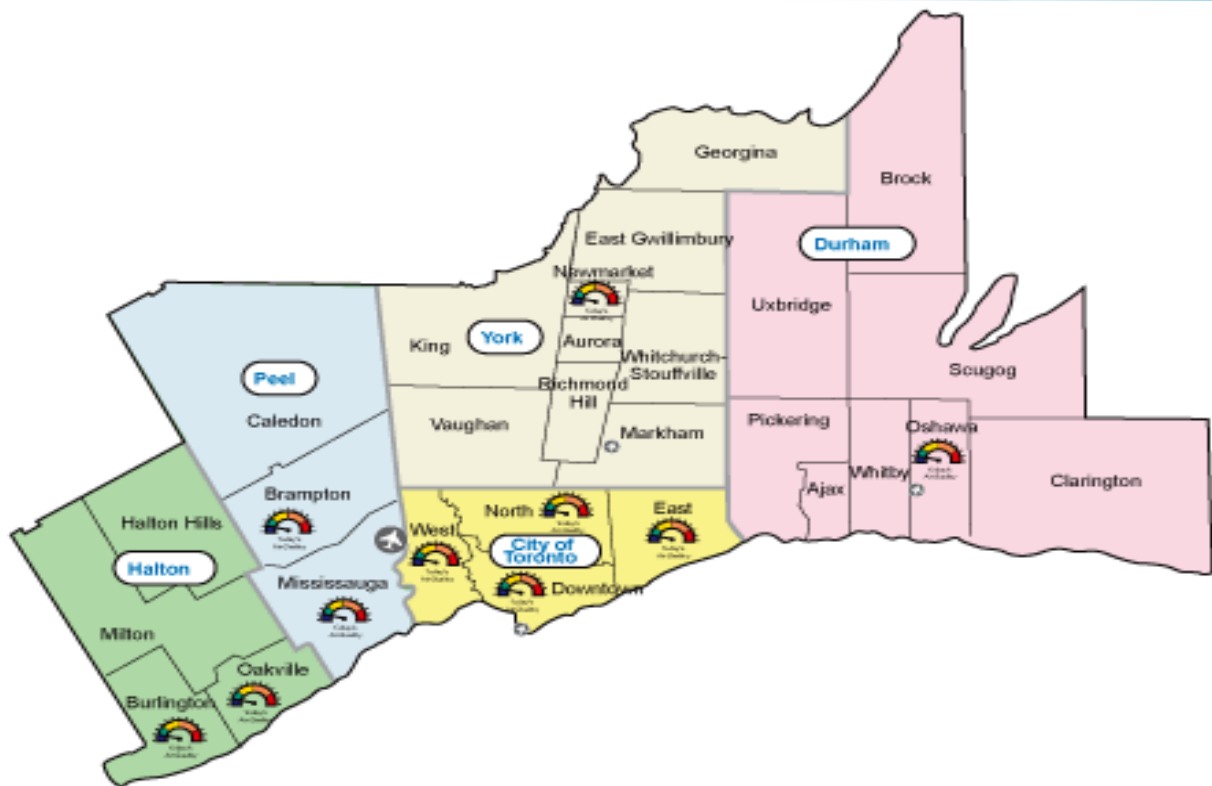
The Air Quality Health Index (AQHI) is a new public information tool that helps Canadians protect their health on a daily basis from the negative effects of air pollution. This tool has been developed by Health Canada and Environment Canada, in collaboration with the provinces and key health and environment stakeholders. Choose from the links below to learn more about the AQHI, to get your local AQHI update, or to find out if you are "at-risk" from air pollution.

 [About the AQHI](#)

 [Your Local AQHI Conditions](#)

 [Are You At Risk?](#)

Air Quality Health Index Monitoring Stations

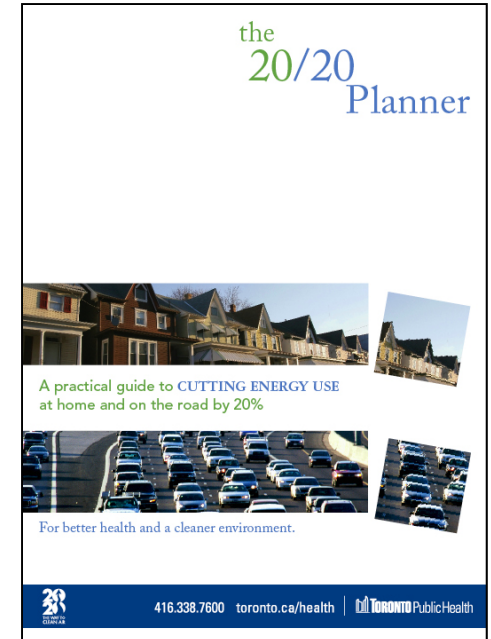


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20/20 The Way to Clean Air

Taking action to reduce air pollution

- 20/20 the Way to Clean Air is a campaign designed to help people reduce home energy use and vehicle use by 20%
- Reducing air pollution through 20/20 can help reduce the number of days when the Air Quality Health Index is high



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The 20/20 Planner

How does it work?

- Energy reduction activities:
 - Easy-to-use checklists
 - Short and long term activities
 - Tips for tenant/condo-owners
 - Transportation plan
- 20/20 Connector – programs and services that help participants reduce energy use
- To order a 20/20 planner visit www.cleanairpartnership.org/2020



A practical guide to CUTTING ENERGY USE
at home and on the road by 20%



For better health and a cleaner environment.

For More Information, Contact Your Local Health Unit

York:

www.york.ca/Services/Public+Health+and+Safety/Environmental+Health/Outdoor+Air+Quaity+.htm

Peel:

www.peelregion.ca/health/smog/todays-aqi.htm

Durham:

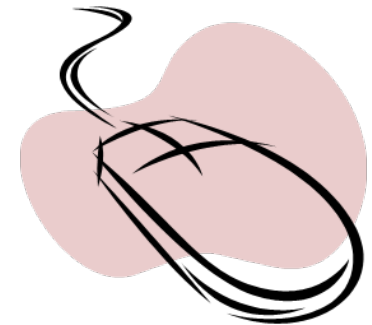
www.durham.ca

Halton:


www.halton.ca/health/services/air_quality/air_quality_health_index.htm

Toronto:

<http://www.toronto.ca/health/airquality/aqi>



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Thank you

Any Questions?

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