PM is a mixture of small liquid and solid particles in the air we breathe. They vary in size and chemical make-up. PM is a component of smog.

**WHO IS MOST AT RISK TO AIR POLLUTION?**

Even healthy young adults can experience health issues on days when the air is heavily polluted but some groups are more at risk:

- Children
- Seniors
- People with asthma, chronic obstructive pulmonary disease (COPD), cardiovascular diseases, diabetes
- Active people of all ages who exercise or work hard outdoors

**WHAT ACTION IS THE GOVERNMENT OF CANADA TAKING ON PM?**

- Federal regulations have reduced PM emissions in Canada from key sources.
- Canada has agreed to international treaties to reduce PM emissions.
- Canada has established the Canadian Ambient Air Quality Standards (CAAQS). These are health- and environment-based numerical values of outdoor air concentrations of pollutants intended to drive continuous air quality improvement in Canada. The CAAQS, a key element of the Air Quality Management System, were developed through a process steered by the Canadian Council of Ministers of the Environment (CCME).

### Levels of PM in Outdoor Air

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>CAADQ Numerical Values</th>
<th>Units</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$_{2.5}$</td>
<td>24 hours (calendar day)</td>
<td>28</td>
<td>27</td>
<td>Micrograms per cubic metre ($\mu g/m^3$)</td>
</tr>
<tr>
<td></td>
<td>Annual (calendar year)</td>
<td>10.0</td>
<td>8.8</td>
<td></td>
</tr>
</tbody>
</table>

**Health Effects of PM**

- Increased lung problems
- Increased heart problems
- Increased hospital admissions
- Increased medical visits
- Increased lung cancer
- Premature death

**Who is most at risk to air pollution?**

- Children
- Seniors
- People with asthma, chronic obstructive pulmonary disease (COPD), cardiovascular diseases, diabetes
- Active people of all ages who exercise or work hard outdoors

**How can I protect myself from air pollution?**

Know when the air is unhealthy:

- Check the Air Quality Health Index in your community to find out the best time to be active outside (https://weather.gc.ca/airquality/pages/index_e.html)
- If you have a heart or lung condition, talk to your health care professional about additional ways to protect your health when air pollution levels are high

Ways to reduce exposure:

- Avoid or reduce strenuous outdoor activities when air pollution levels are high
- Avoid or reduce exercising near areas of heavy traffic, especially during rush hour

**Levels of PM in Outdoor Air**

Levels of PM in outdoor air can vary by region and by season.

More information can be found on the STATE OF THE AIR website

http://airquality-qualitydelair.ccme.ca/en

For more information on air pollution, please visit www.canada.ca/en/health-canada/services/air-quality.html or contact us at: HC.air.SC@canada.ca