

Health Precautions for Adverse Air Quality Events

Saskatchewan's outdoor air quality is generally good, but smoke and other pollutants from environmental or human-caused events can lead to elevated pollution levels, which may affect air quality and health.

Poor air quality can result from a variety of natural and human-made sources. Common contributors:

Fires

- Wildfires and structural fires release smoke, ash, and fine particulate matter (PM_{2.5})
- These events also emit volatile organic compounds (VOCs) and other toxic gases

Industrial Pollution

- Factories, refineries, and fossil fuel production release chemical pollutants
- Common emissions include carbon dioxide (CO₂), VOCs, and other hazardous compounds

Vehicle Emissions

- Cars, trucks, and buses produce exhaust containing nitrogen oxides (NO_x), CO₂, and particulate matter
- Heavy traffic areas often have elevated pollution levels

Natural and Agricultural Sources

- Dust storms can carry large amounts of fine particles across regions
- Agricultural activities may release airborne substances such as fertilizers, pesticides, methane, and biological allergens like pollen

Potential health risks:

Exposure to polluted air can affect anyone, but especially those with existing health conditions.

Common symptoms and risks include:

- Irritation of eyes, nose, and throat
- Fatigue, headaches, and dizziness
- Difficult breathing for those with respiratory illnesses like asthma and COPD
- Increased risk of heart and lung conditions
- Prolonged exposure linked to elevated cancer risk and adverse neurological effects



Protecting Yourself:

Stay Indoors

- Keep windows and doors closed
- Prevent smoke and other pollutants from entering indoors by turning off outdoor air intakes and using recirculate mode
- Use air purifiers with HEPA filters
- Seal gaps around windows and doors to reduce smoke infiltration
- Avoid activities that worsen indoor air (e.g., burning candles, frying food)

Limit Time Outdoors

- Avoid strenuous outdoor activity, especially exercise
- If you must go out, wear a well-fitting N95 mask
- Minimize exposure to areas with heavy traffic and industrial activity
- Check local air quality alerts (e.g., [SaskAlerts](#) for poor air quality alerts related to wildfire smoke)
- The Saskatchewan Ministry of Environment monitors outdoor air quality using fixed and mobile stations. Real-time data is available at saskatchewan.ca/residents/environment-public-health-and-safety/environmental-health/outdoor-air-quality/air-quality-monitoring

Additional Tips:

- **Create a Clean Air Room:** Seal windows and use a HEPA-filter air purifier to reduce indoor pollution. Keep well-fitting N95 masks on hand and wear them when air quality deteriorates.
- **Protect Vulnerable Individuals:** Children, older adults, pregnant people, and those with chronic conditions (e.g., asthma, COPD, cancer, heart disease) should take extra precautions. Consult a healthcare provider for personalized advice.
- **Keep Medications Accessible:** Ensure essential medications, such as inhalers, are readily available and not expired.
- **Stay Hydrated:** Drink plenty of fluids to stay hydrated.
- **Know When to Seek Help:** If symptoms worsen, call 811 for health advice. For emergencies such as difficulty breathing or chest pain, call 911.

For additional guidance on outdoor air quality, visit Health Canada's [Air Quality Health Index](#) page.

To learn more on how to protect your health during adverse air quality events, contact your local [Public Health Inspection](#) office.