

AIR QUALITY ALERTS AND ACTIONS

The Minnesota Pollution Control Agency (MPCA) issues air pollution health advisory alerts when air pollution levels are unhealthy. This occurs most often when weather conditions change the rate at which air pollutants are formed or accumulate in the air. For example, ozone pollution, or smog, tends to increase on hot and sunny days with little wind. And fine particle pollution is commonly elevated in winter when conditions include high humidity, high pressure, and strong overnight temperature inversions. Those at risk during air pollution advisories include those with pre-existing respiratory or cardiovascular conditions, elderly, children, and those participating in outdoor activities requiring extended or heavy exertion. But even individuals who are otherwise healthy may experience health effects when ozone levels increase.

In this activity, participants will sign up for air quality alerts from the MPCA to be notified when air pollution levels are unhealthy. They will also learn about actions they can take during an air quality alert to improve air quality and protect health.

Outcomes

Sign up for MPCA air quality alerts and understand actions to take during an air quality alert.

Audience

Adults

Time

20 - 40 minutes

Concepts

- People can experience health effects when air pollution levels are unhealthy during an air quality alert.
- Individuals can take specific actions during air quality alerts to improve air quality and protect health

Supplies

- Computer(s) with internet access
- Sticky notes
- Writing utensils



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Preparation

- Familiarize yourself with the Be Air Aware website at www.beairaware.org.

Procedure

- Have participants visit the MPCA's air quality website at www.pca.state.mn.us/air/current-air-quality-index and look at the current air quality index for Minnesota. Ask participants what the air quality index might mean for health and the environment.
- Explain that alerts are sent when the air quality is poor in Minnesota so individuals can take appropriate actions to protect health and improve air quality.
- Have participants sign up for MPCA's air quality alerts at www.pca.state.mn.us/air/current-air-quality-index.
- Discuss the following actions that can be taken during air quality alerts. Have participants commit to one or more actions by creating a pledge with a sticky note. Have participants place their sticky notes on a wall or board to display their commitments.
 - Use less energy at home: Generating energy can create air pollution. Save energy, improve air quality and save money.
 - Limit recreational backyard fires. Burning firewood is among the major sources of air pollution. If you must burn, burn wisely by following the tips from the Environmental Protection Agency at www.epa.gov/burnwise.
 - Cars that burn gas make a lot of pollution. Walk, bike, carpool or take public transportation instead of driving.
 - Reduce unnecessary vehicle idling. Idling increases air pollution, and all you're doing is wasting gas and increasing air pollution. Most cars don't need to warm up for 5 to 10 minutes.
 - Use hand-powered or electric lawn and snow care equipment. Gasoline-powered engines like those on lawnmowers and snow blowers often have no pollution control devices.
 - Fill up your gas tank after dark. Gasoline emissions evaporate as you fill up your gas tank and contribute to the formation of ozone. In the summer, fill up after dark to keep the sun from turning these gases into air pollution.
 - Encourage colleagues to use alternative transportation such as bus, train or bike and, on air alert days, to work from home.
 - Volatile organic compounds (VOCs)—found in inks, solvents, paint, gasoline and other chemicals are a major component of ozone and smog. On air alert days, limit the use of products that contain VOCs.
 - Encourage your workplace to become an Air Aware Employer at www.beairawaremn.org. The Air Aware program gives employers tools to empower their employees to improve air quality and protect their health.
- Take a photo of the sticky note pledge on the wall and have participants keep their sticky note pledge to remember their commitment to improve air quality and protect their health.

Discussion questions

- What surprised you about the air quality index in Minnesota?
- What action(s) did you commit to during air quality alerts? What action(s) do you think are the most impactful? Why?
- Are there any barriers that are stopping you? How could you overcome those barriers?
- How could you encourage your family and friends to sign up for air quality alerts and take action when air quality is poor?
- How is air quality related to climate change and energy conservation?