

Trimming Back Summer Ozone Production July 2007

[Ground-level ozone](#) is formed by a chemical reaction between volatile organic compounds (VOCs) and oxides of nitrogen in the presence of sunlight. Sources of VOCs and oxides of nitrogen include:

- automobiles, trucks, and buses;
- large industry and combustion sources such as utilities;
- small industry such as gas stations and print shops;
- consumer products such as paints and cleaners; and
- off-road engines such as aircraft, locomotives, construction equipment, and lawn and garden equipment.

Even at relatively low levels, ground-level ozone can limit the ability to take a deep breath, and it can cause coughing, throat irritation and breathing discomfort. Groups that are especially sensitive to ozone include children and adults who are active outdoors, and people with respiratory disease, such as asthma. Even healthy adults involved in moderate or strenuous outdoor activities can experience the unhealthy effects of ozone.

What is an Ozone Action Day?

State or local air quality agencies are responsible for designating [Ozone Action Days](#) when ozone levels are forecast to reach unhealthy levels. Ozone Action Days will be announced during weather forecasts on radio and television. Newspapers may also have announcements in their weather sections.

Ozone and other air pollutant levels are reported in terms of the [Air Quality Index \(AQI\)](#). U.S. EPA developed the AQI to provide uniform and easily understandable information about the daily levels of air pollution. The ozone AQI chart shown below contains cautionary language to help you when air quality levels are unhealthy.

Tips for Ozone Action Days

Travel Tips

- Limit driving. Defer errands or share a ride. For short trips, walk or ride a bike.
- If you drive, avoid excessive idling or jack-rabbit starts.
- Take transit. Ride the bus or train to work, school or shopping.
- Don't refuel on an Ozone Action Day. If you must refuel, do so after 7 pm.
- Avoid using gasoline-powered equipment, such as outboard motors and off-road vehicles.

Home Tips

- Defer mowing your lawn until late evening or the next day. Also, avoid using other gasoline-powered garden equipment.
- Postpone using oil-based paints, solvents or varnishes.
- Use an electric starter or charcoal chimney rather than lighter fluid.
- Defer use of household consumer products that release fumes or evaporate easily.
- Conserve energy to reduce energy needs from power plants.

Air Quality Index (AQI): Ozone

Index Values	Levels of Health Concern	Cautionary Statements
0 - 50	Good	None
51 - 100*	Moderate	Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.
101 - 150	Unhealthy for Sensitive Groups	Active children and adults, and people with lung disease, such as asthma, should reduce prolonged or heavy exertion outdoors.
151 - 200	Unhealthy	Active children and adults, and people with lung disease, such as asthma, should avoid prolonged or heavy exertion outdoors. Everyone else, especially children, should reduce prolonged or heavy exertion outdoors.
201 - 300	Very Unhealthy	Active children and adults, and people with lung disease, such as asthma, should avoid all outdoor exertion. Everyone else, especially children, should avoid prolonged or heavy exertion outdoors.
301 - 500	Hazardous	Everyone should avoid all physical activity outdoors.

*An AQI of 100 for ozone corresponds to an ozone level of 0.08 parts per million (averaged over 8 hours).

For More Information

One of Ohio EPA's partners in protecting Ohio's environment is the local air pollution control agency. These agencies, often part of local health departments or governments, have been delegated certain air pollution control responsibilities from Ohio EPA. These agencies work under a contract with Ohio EPA to perform the same activities as Ohio EPA's district offices. There are nine local air pollution control agencies throughout Ohio. To report air pollution violations or obtain information about facilities in your county, [contact the appropriate air agency or district office.](#)



Air Quality Reports

[Check here](#) for air quality information in Akron; Cincinnati; Cleveland/Lorain/Elyria; Columbus; Dayton; and Youngstown.

Enviroflash allows you to [sign up](#) for daily e-mail alerts regarding air quality forecasts and air quality action days in Cincinnati; Cleveland/Akron/Lorain; Columbus; Dayton/Springfield; and Youngstown.



The Northeast Ohio Areawide Coordinating Agency's [Fine Particle Pollution Program \(FP3\)](#) advises Northeast Ohio residents when fine particle pollution could reach unhealthy levels. The program is operated in partnership with Ohio EPA, the City of Cleveland Division of Air Quality,

the Akron Regional Air Quality Management District, the Akron Metropolitan Area Transportation Study and the Lake County General Health District.

Helpful Publications and Web Sites

- [Ozone and Your Health](#)
- [Ozone: Good Up High, Bad Nearby](#)
- [Smog: Who Does it Hurt?](#)
- [Summertime Safety: Keeping Kids Safe from Sun and Smog](#)
- [A Guide to Air Quality and Your Health](#)
- [AIRNow - Kid's Air Page](#)
- [Ohio Air Quality Conditions and Forecasts](#)
- [Air Compare](#) - See how various cities rank in terms of air pollution