

## AIR POLLUTANT: Ozone



### What is ozone?

Ozone is a colorless, odorless gas that can be good or bad, depending on where it is located in the atmosphere. Ozone in the stratosphere high above the Earth is good because it shields us from the sun's ultraviolet rays. Ozone at ground level, where we breathe, is bad because it can harm public health.

Ground-level ozone forms when two types of pollutants—volatile organic chemicals (VOCs) and nitrous oxides (NOx)—react in sunlight. These pollutants come primarily from automobiles, but also from other sources including industries, power plants and products such as solvents and paints.

### Is ozone the same as the “Brown Cloud”?

No. Ozone is colorless and cannot be seen. The Brown Cloud, or haze, that appears in the air over urban areas, such as Phoenix, is made of small particles of soot and dust. Even when visibility is good, there may be high levels of ozone present.

### Why is ozone a problem?

Ozone can cause a number of health problems, including:

- Coughing
- Breathing difficulty
- Lung damage

Exposure to ozone can make the lungs more susceptible to:

- Infection
- Aggravate lung diseases
- Increase the frequency of asthma attacks and increase the risk of early death from heart or lung disease

Prolonged exposure to ground-level ozone concentrations is as harmful to public health as exposure to higher levels for shorter durations.

### Do I need to be concerned?

Even healthy adults can experience harmful effects from breathing ozone, but some people may be at greater risk. This includes:

- People with lung disease, such as asthma
- Children, including teenagers, because their lungs are still developing and they breathe more air per pound of body weight than adults
- Older adults
- People who are active outdoors, including outdoor workers

### How can I protect myself?

For Phoenix, Tucson, Yuma, Flagstaff, and Prescott, the ADEQ Forecast Team issues an air quality forecast for ozone. These provide an hour-by-

hour outlook, helping people plan for outdoor activities through the day to minimize the impacts of air pollution. These forecasts are based on the U.S. Environmental Protection Agency's (EPA) Air Quality Index (AQI).

When you see that the air quality forecast predicts an AQI indicating potentially harmful pollutant levels, take simple steps to reduce your exposure, including:

- Choosing a less-strenuous activity
- Taking more breaks during outdoor activity
- Rescheduling activities to the morning or to another day as ozone levels are generally highest in the afternoon
- Moving your activity inside where ozone levels are usually lower

It's also important to stay healthy—exercise, eat a balanced diet and keep asthma under control with your asthma action plan.

*(See next page)*

## Can I help to reduce ozone?

Yes! You can:

- Drive less—carpool, use public transportation, bike, walk, telecommute
- Keep your engine tuned and don't let your engine idle
- Refuel your vehicle in the evening or at night
- When refueling, stop when the pump shuts off, avoid spilling fuel and fully tighten your gas cap
- Inflate tires to the recommended pressure
- Don't use gas-powered lawn or garden equipment
- Use low-VOC paint and cleaning products; seal and store them so they can't evaporate
- Choose ENERGY STAR appliances
- Watch for High Pollution Advisories in your area

### Where can I learn more?

Visit the ADEQ Air Forecasting webpage at [azdeq.gov/forecast](http://azdeq.gov/forecast) for air quality forecasts.

### Contact the Forecast Team directly at:

[ForecastTeam@azdeq.gov](mailto:ForecastTeam@azdeq.gov)

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