

## New Ozone Standard in 2013 Preparing Oregon for a more protective standard

The US Environmental Protection Agency is evaluating the latest scientific research which shows that exposure to lower levels of ozone (smog) pollution is more harmful than previously thought. Based on this review, EPA recently announced that it may tighten the health-based federal standard for ground-level ozone in 2013. Find more information about the new federal ozone standard at [www.airnow.gov](http://www.airnow.gov).

All Oregon communities currently meet the existing ozone standard. Recent public health research indicates that the current standard may not adequately protect health. Some Oregon communities are within the range this research identifies as unhealthy. EPA will likely select from within this range if it sets a new, more protective ozone standard.

DEQ will continue to work closely with community leaders to prepare for an ozone standard update, to prevent future ozone problems, and to protect Oregonians' health.

### Health effects of ozone

Elevated ozone levels can aggravate and trigger asthma attacks and worsen chronic lung diseases like emphysema and bronchitis. Ozone causes what amounts to a sunburn on the lungs by chemically reacting with and harming lung tissue.

Children are more sensitive to ozone because they often play outdoors in the summer when ozone levels are higher. Their lungs are still developing and they are more likely to have asthma.

Older adults may be more susceptible to the effects of ozone because they are more likely to have pre-existing lung disease. Active people of all ages who exercise or work vigorously outdoors also have a higher exposure to ozone.

### DEQ's success at reducing ozone pollution

Both the Portland-Vancouver and Medford areas have violated the ozone standard in the past. DEQ worked with these communities to develop the following measures that continue to be effective today:

- [Vehicle inspection programs](#) in the Portland and Rogue Valley areas.
- [Regulating emissions from industry](#) and small businesses.
- Requiring equipment to control gasoline vapors.
- [Assistance to small businesses](#) to reduce the use of smog-forming chemicals.
- Limits on content of smog-forming chemicals in paints and consumer products in the Portland area.
- Year-round air pollution advisories.
- Employee Commute Options Program in the Portland area.



*Ozone or "smog" pollution is particularly harmful to sensitive people like the elderly and children. People who suffer from heart disease or lung-related illnesses are also more sensitive to smog.*

### What is ozone?

Ozone is a colorless gas made up of three oxygen atoms. Ozone is good or harmful, depending on where it occurs. Good ozone is naturally present in the upper atmosphere – 10 to 30 miles above the Earth's surface. This ozone shields us from the sun's harmful ultraviolet rays. Harmful ozone forms near ground-level in the air we breathe. Ozone is the main component in smog and is a problem in Oregon during the hot summer months.



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## Where does ozone come from?

Unlike most other types of air pollution, ozone is not emitted directly into the air. Rather, it forms through a chemical reaction on hot days when vehicle exhaust, gasoline vapors, paints, solvents and industrial emissions “cook” together in the presence of heat and sunlight.

The main ozone forming chemicals are volatile organic compounds and nitrogen oxides. These chemicals are problems in their own right. Some of them are categorized as [air toxics](#), chemicals known or suspected to cause cancer and other serious health problems.

Ozone formation is highly dependent on weather. If Oregon has more hot days due to [climate change](#), the result may be higher ozone levels.

## How can I find out what the ozone level is in my area?

To see current pollution levels in your city visit [www.deq.state.or.us/aqi/index.aspx](http://www.deq.state.or.us/aqi/index.aspx). You can also sign up to receive advisories from DEQ when higher levels of ozone are predicted.

## Protect your health and help reduce ozone

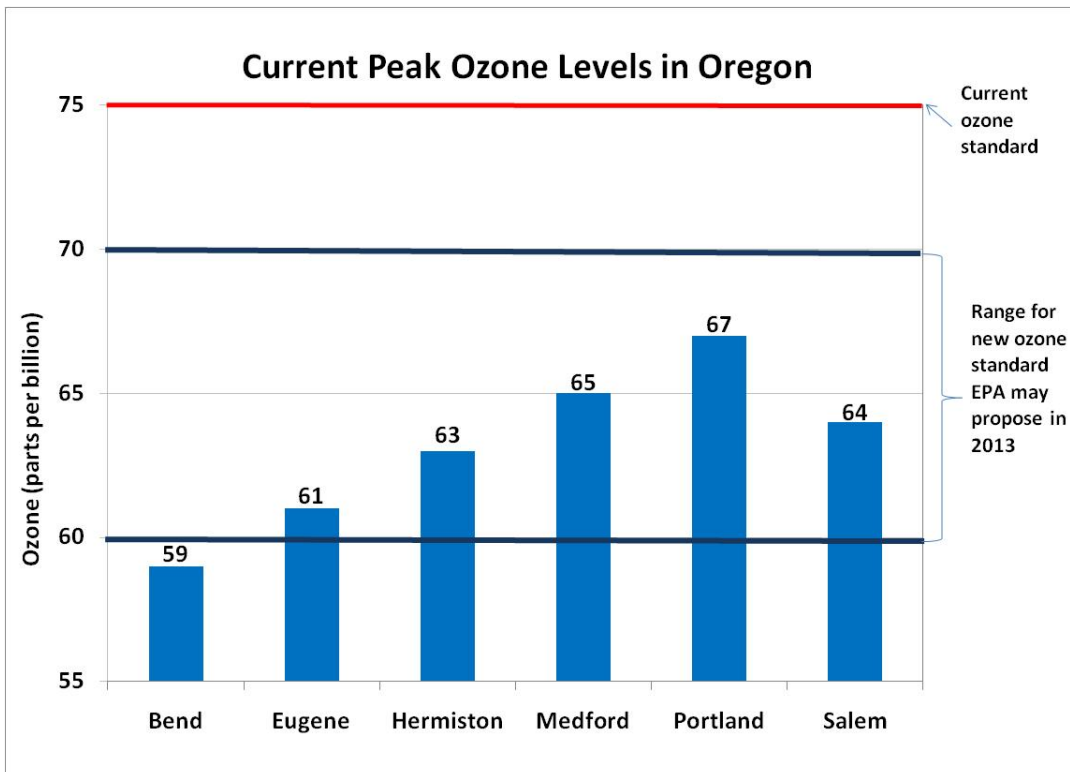
When ozone levels rise, you can protect your health by avoiding strenuous outdoor activity in the late afternoon and early evening when ozone levels tend to be highest. If you have asthma, talk to your doctor about an asthma action plan.

Because most ozone pollution comes from our everyday activities, you can help keep the air clean by taking these actions:

- Drive less (use transit, carpool and combine errands).
- Don't idle your engine while parked or waiting.
- Purchase low- or no-VOC consumer products.
- Wait to paint, mow the lawn and refuel the car until after it cools off.

### Alternative formats

*Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696.*



EPA determines compliance by using a three-year average of the fourth highest eight-hour average. The data is collected from DEQ air monitors. The Bend number represents only one year of data.

