



# New Mexico Environment Department

*PROTECTING OUR ENVIRONMENT, PRESERVING THE ENCHANTMENT*

## Air Quality Bureau

### Ozone Pollution Health Effects

#### **Is ozone pollution harmful?**

Ground-level ozone is a public health concern. Prolonged exposure to low-level ozone concentrations is as harmful to human health as exposure to higher levels for shorter durations.

Although certain groups of people are considered most at risk from ozone pollution due to developing or compromised cardiovascular systems, even healthy people can be affected.

#### **What are the main health effects of ozone pollution?**

Ozone can inflame the airways, causing symptoms such as chest pain, coughing, wheezing and shortness of breath, even in healthy people. These effects can be more serious in people with lung diseases, such as asthma.

Ozone can harm the respiratory system by inflaming cells that line the upper airways and the lungs, much like a sunburn damages skin.



- Short-term exposures to ozone can make it more difficult to take a full, deep breath and can cause adverse respiratory symptoms. These short-term exposures also can aggravate asthma and other lung diseases and can make people more susceptible to respiratory infections.
- Long-term exposure to ozone is linked to the development and aggravation of asthma and a variety of other effects on the respiratory system. New studies warn of serious effects from breathing ozone over longer periods (days, months or years). With more long-term data, scientists are finding that long-term exposure (i.e., for periods longer than eight hours) may increase the risk of early death.

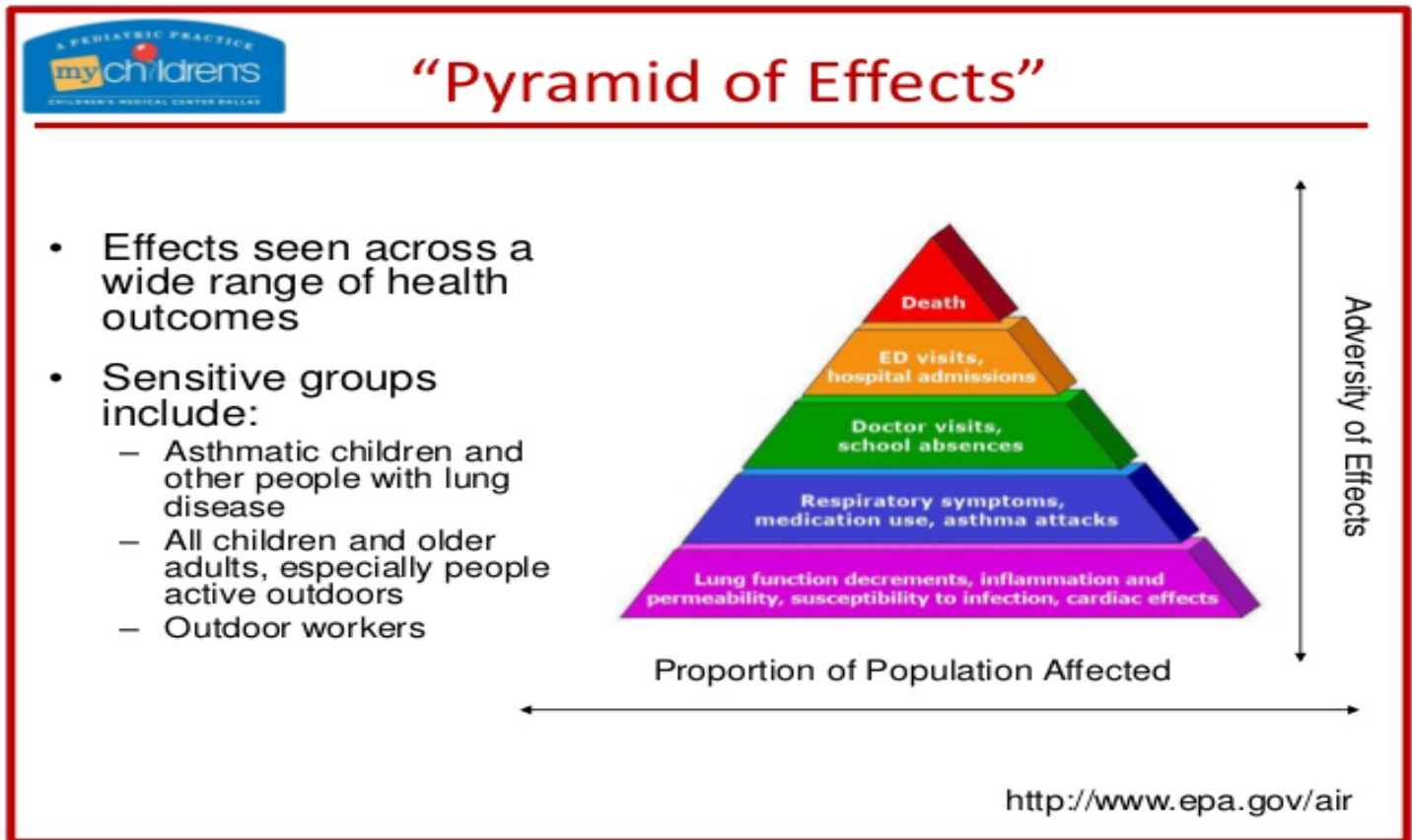
Anyone who spends time outdoors where ozone concentrations are high may be at risk of experiencing health effects. Five groups of people are especially vulnerable to the effects of breathing ozone:

- children and teens;
- adults 65 and older;
- people who work or exercise outdoors;
- people with existing lung diseases, such as asthma and chronic obstructive pulmonary disease (also known as COPD, which includes emphysema and chronic bronchitis); and
- people with cardiovascular disease.

Because children and teens spend nearly twice as much time outdoors and engage in vigorous activities twice as much as adults, their risk of health impacts is increased relative to adults. Children breathe more rapidly than adults and inhale

# Ozone Pollution Health Effects

more pollution per pound of body weight than adults, increasing their exposure to pollution. Also, children are less likely than adults to notice their own symptoms and avoid harmful exposures. Repeated ozone exposure to developing lungs can affect children into adulthood, contributing to permanent reductions in the lungs' ability to function. Older adults may be more affected by ozone exposure due to already decreased lung tissue elasticity; effects are heightened if they have pre-existing lung conditions.



Stay informed and be part of the ozone conversation in New Mexico -- We're listening. To get the most current information, sign up for email alerts at <https://public.govdelivery.com/accounts/NMED/subscriber/new>.

## For more information:

[www.env.nm.gov/air-quality/o3-initiative/](http://www.env.nm.gov/air-quality/o3-initiative/)

### OAI Project Manager and Permian Basin Contact

Robert Spillers, [robert.spillers@state.nm.us](mailto:robert.spillers@state.nm.us), (505) 476-4324

### OAI Four Corners Area Contact

Mark Jones, [mark.jones@state.nm.us](mailto:mark.jones@state.nm.us), (505) 566-9746

### OAI Doña Ana County Contact

Armando Paz, [armando.paz@state.nm.us](mailto:armando.paz@state.nm.us), (575) 449-2983