

What is ozone?

Ozone is a gas that can be found naturally in the atmosphere, but is also a product of air pollution and a major component of smog. In the upper atmosphere, ozone is generated by the interaction of sunlight with oxygen, and is important for protecting us from ultraviolet light (the “ozone layer”). However, it can be generated at ground level in polluted air through the interaction of sunlight with nitrogen oxide. It can be used to purify air and water, and in industry to bleach materials. It is used in laboratories to produce other chemicals.

Who is exposed to ozone?

You are most likely to be exposed to ozone in polluted air. In cities, the risk of high ozone levels is greatest during May through September, due to increased sunlight and stagnant air.

Because ozone can be used for disinfection, some companies sell ozone-producing air cleaners claiming that they will help purify household air. These products are not approved or regulated by the United States Environmental Protection Agency (EPA). Because of the health risks of ozone, it is recommended that people not use ozone generators in their homes. Some mold cleanup companies may also offer ozone treatment for homes. Because this treatment can damage furnishings, it is not recommended by the Virginia Department of Health.

How can ozone affect my health?

High levels of ozone in polluted air can irritate people’s lungs, especially lungs of people with asthma. Healthy young people can have temporary exercise intolerance. If ozone levels are high, the effects may persist for a few days after ozone levels return to normal. Older people who have lung or heart disease are at higher risk for problems from exposure to ozone.

How likely is ozone to cause cancer?

Ozone is not known to cause cancer in animals or humans.

How can ozone affect children?

Children are at high risk because they spend a lot of time outside and are more likely than adults to have asthma. Infants are at risk because their lungs are still developing. Over a long period of time, repeated exposure to ozone can make a person more likely to get lung infections and can reduce lung function, especially in children.

Is there a medical test that can show if I have been exposed to ozone?

There is no medical test for ozone exposure.

How can I reduce the risk of exposure to ozone?

When ozone levels are high, it is best to stay indoors if possible, and to limit outside exercise. If you do go outside try to stay away from roads and highways. Dust masks and respirators cannot reduce

exposure to ozone. For more information on ozone generating air purifiers, see <https://www.epa.gov/indoor-air-quality-iaq/ozone-generators-are-sold-air-cleaners>.

Where can I get more information on ozone?

- If you have concerns about ozone, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at <https://www.vdh.virginia.gov/local-health-districts/>.
- Contact the Virginia Department of Health at (804) 864-8127 or at toxicology@vdh.virginia.gov.
- Visit the Centers for Disease Control and Prevention website at <https://www.cdc.gov/niosh/topics/ozone/>.

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