Ozone

Good ozone vs. bad ozone

Ozone is good when it is high up in the atmosphere. It protects us from ultraviolet (UV) rays that can be damaging to our skin and other living organisms. Ozone is bad when it is close to the ground where we breathe.

What causes ozone pollution?

Ground-level ozone (smog) is formed through a complex chemical reaction involving hydrocarbons, nitrogen oxides and the sunlight. The hydrocarbons and nitrogen oxide emissions from cars and industry are heated up by sunlight to form ground-level ozone. People often assume industry is the main source of air pollution, yet approximately half of the hydrocarbons in ozone smog come from the everyday actions, such as when we drive our cars, maintain our homes and use a variety of products containing volatile chemicals. High levels of ground-level ozone typically occur on hot summer days, but can occasionally occur outside of the summer season.

How does ozone affect our health?

Ozone can cause shortness of breath, coughing, wheezing, eye and nose irritation. It can be especially dangerous to the elderly, children, people with chronic respiratory ailments (especially asthma) and even to individuals who exercise outdoors.

How can we protect ourselves and our families from ozone?

Know your local air quality! Subscribe to Illinois EnviroFlash to receive your local air quality forecast via email. You can also find the daily air quality forecast on our homepage, and often by watching your local weather forecast. When the air quality reaches the Orange, the "Unhealthy for Sensitive Groups" (or higher) category, follow the recommended actions listed on the Air Quality Index to protect your health. These recommendations -- such as taking public transit or walking or biking, setting your water heater thermostat to 120 degrees or lower, or turning off unneeded appliances -- can also save you money! You should also follow any physician-prescribed regimen. Especially sensitive individuals should follow such actions when the air quality is Yellow, "Moderate" (or higher). In addition to protecting our health, we can also Take Action and reduce air pollution.

What Role Does Cook County Play?

Cook County's Department of Environmental Control operates an air monitoring network for ozone along with monitors that detect fine particles, sulfur dioxide, nitrous oxide, ozone, lead and certain other toxic metals air pollutants. This network includes eight continuous and eight non-continuous monitoring sites as well as one special project air toxic monitoring site. These sites are located throughout Cook County, including in the City of Chicago.

Air quality data is pulled every hour and stored at the Department's computer in the Maywood Lab. Daily average readings may be accessed by the public through a recorded message, which is translated to an Air Quality Index. The telephone number for this message is 708-865-6320.