



OZONE AT A GLANCE

National Ozone Air Pollution Season: May 1 – September 30

WHAT IS GROUND-LEVEL OZONE?

Ground-level ozone is a secondary pollutant that is created in the lower atmosphere when primary pollutants called volatile organic compounds (VOCs) and nitrogen oxides (NOx) chemically react in the presence of heat and sunlight. It is different from stratospheric ozone, which exists naturally in the Earth's upper atmosphere and acts as protective filter from the sun's harmful ultraviolet radiation.

MAJOR SOURCES OF VOCs

- Motor vehicles
- Evaporation of gasoline from refueling and spillage
- Gasoline-powered lawn equipment
- Consumer products such as oil-based paints, aerosol sprays, and lighter fluid

MAJOR SOURCES OF NOx

- Motor vehicles
- Diesel engines
- Gasoline-powered lawn equipment
- Industrial facilities

SHORT AND LONG-TERM HEALTH EFFECTS

- Aggravated asthma or other respiratory diseases
- Breathing difficulty during exercise or outdoor activity
- Increased susceptibility to respiratory infection
- Inflammation of the airways – similar to a sunburn on the skin
- Decreased lung function and diminished lung capacity
- Scarring of the lung tissue

SYMPTOMS OF GROUND-LEVEL OZONE EXPOSURE

- Coughing, wheezing, and difficulty breathing
- Chest pain or pain when taking a deep breath
- Aggravated asthma or other respiratory diseases
- Eye and throat irritation
- Headaches and/or fatigue

WHO'S AT RISK?

- Children and the elderly
- Adults who work or exercise vigorously outdoors
- People with respiratory diseases such as asthma or emphysema