



Earth Gauge™ Atlanta – Air Quality

Environmental Information for Broadcast Meteorologists

This fact sheet is part of a series on key weather-environment topics for the Atlanta regional area. The Earth Gauge™ Healthy Communities project is designed to provide basic background information on environmental impacts in major U.S. urban areas, as well as simple messages meteorologists can deliver to their viewers.

More than 51 percent of Americans live in counties with unhealthy levels of air pollution, and residents of the Metro Atlanta Region are no exception. Here, read about ground-level ozone pollution in Atlanta, and find ways to reduce your impact on the Region's air quality.

Ground-Level Ozone in Atlanta

During Atlanta summers, heat and sunlight react with nitrogen oxides (NOx) and volatile organic compounds (VOC) – pollutants found in exhaust from cars and gas-powered lawn equipment, power plant emissions, gasoline fumes, and other sources – to create ground-level ozone pollution. Twenty (20) counties in the Atlanta region are designated as “non-attainment” areas for ozone pollution, meaning that it’s likely that levels of pollution will exceed state and federal limits.

Ground-Level Ozone Pollution Impacts People, Plants, and the Built Environment



Ground-level ozone pollution irritates airways and causes health problems for individuals with chronic lung conditions. More than 95,000 people in Fulton County alone suffer from asthma, chronic bronchitis, or emphysema – 17,000 are pediatric asthma cases.



Ground-level ozone pollution damages plant life. High concentrations can slow photosynthesis (the process by which plants make food), stunt growth, and damage plant cells. It can also reduce agricultural crop yields and forest growth.



Some materials – rubber, textiles, some paints and fibers – can be weakened by ground-level ozone pollution, and elastic materials (such as rubber) can become more brittle or crack. Ground-level ozone can damage buildings and national monuments, and reduce visibility in cities.

Learn More about Air Quality

The Clean Air Campaign offers resources and ideas for improving Atlanta's air quality and reducing traffic congestion. Learn about walking and biking, telecommuting, carpooling, transit, and other transportation options. www.cleanaircampaign.org

AIRNow provides local air quality forecasts for ground-level ozone and particle pollution, fact sheets and resources on the effects of air pollution, and resources for meteorologists to include the air quality forecast in their on-air presentations. www.airnow.gov

It All Adds up to Cleaner Air, a public education campaign to raise awareness of connections between transportation and air quality, includes links to University and local government resources, tips for drivers, lists of community partners, and relevant publications. www.italladds.gov

Flip this page over to find simple messages and tips about ground-level ozone pollution you can use during your on-air weather report.



Earth Gauge

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Making the Connection: What You Can Say On-Air

Here are some simple facts and tips you can provide to your viewers to help make the connection between hot, sunny weather and air quality. Help your viewers understand how ground-level ozone forms and how they can take simple steps to reduce their own impact on Atlanta's air quality.



Sitting Idle

The typical Atlanta commuter spends 67 hours per year sitting in traffic – more than an entire work week! On hot days, exhaust from idling cars reacts with heat and sunlight to create ground-level ozone, a harmful pollutant that can cause health problems for asthmatics and others with chronic lung conditions.

Viewer Tip: Try sharing a ride with a coworker or friend, and you'll cut your emissions almost in half. Mass transit is equally beneficial for air quality. Using alternative transportation just once per week can save you up to 1200 miles on your car and more than 500 dollars in driving costs. Visit www.itsmarta.com to learn more about Atlanta's regional transit system and find a route to your destination.

Breathe Easy

Eleven percent of Georgia children have asthma, and asthma is one of the top-three reasons for pediatric inpatient hospital admissions across the state. Ozone - an airway irritant created when air pollutants from car exhaust, gasoline fumes, and other sources react with heat and sunlight - can trigger health problems for asthmatics and others with lung diseases. Kids can be particularly susceptible to ozone pollution because their respiratory systems are still developing, and they tend to spend more time outside.

Viewer Tip: Keep your eye on the air quality forecast provided by your local meteorologist. On days with poor air quality, consider rescheduling sports games and other outdoor activities for another day. If you do go outside, aim for early morning or evening hours, when air pollution levels are likely to be lower.



Two-Wheeling

The average passenger car emits 77 pounds of hydrocarbons (key ozone pollution ingredients); 575 pounds of carbon monoxide (reduces oxygen delivery to the body and aggravates some heart and lung conditions); and 11,450 pounds of carbon dioxide (traps heat in the atmosphere) each year. Your bike? Zero emissions, no gas required.

Viewer Tip: Dust off your two-wheeler. There is almost one adult-sized bike per household in the U.S., but few adults report taking frequent bike trips. Try using your bike for short trips - leaving your car at home for five separate one-mile trips eliminates the same amount of air pollutants as one 15-mile trip.

Keep it in the Tank

Not only do Metro Atlanta drivers face major traffic delays, but they also spend more money on gas each year than any other metro-area commuters in the U.S. Gasoline fumes are a common air pollution ingredient – when they react with heat and sunlight, ground-level ozone pollution is created.

Viewer Tip: Keep it in the tank – fill up in the early morning or late evening when the air is cooler. At these times of day, gasoline is most dense and less likely to evaporate into the air as you pump. Also, resist the urge to top off the tank, which can release additional pollutants and result in a spill.

