

What are the

health effects of bad air?

Diesel Exhaust

Diesel exhaust from trucks, buses, construction equipment, trains and ships contains particulate matter, nitrogen oxides and over 40 chemicals that are classified as “hazardous air pollutants” under the Clean Air Act.

Car, bicycle and pedestrian commuters are exposed to toxic diesel fumes on a daily basis as they share the road with heavy duty diesel trucks.

Children riding school buses that have not had pollution control filters installed may be breathing diesel exhaust inside the cabin at concentrations three to five times higher than outside the bus.

Community members living near busy truck corridors, intermodal centers, ports and rail yards suffer a disproportionate burden of harmful diesel particulate matter.



Atlanta fails to meet national standards for two pollutants: ozone and fine particulate matter.

What are the health effects of ozone?

Ozone is an airway irritant that can cause inflammation, much like sunburn. This irritation can cause wheezing, coughing, pain when breathing deeply and breathing difficulties during exercise or outdoor activities. In healthy people, ozone can result in reduced lung capacity, permanent lung damage and increased susceptibility to respiratory illnesses like pneumonia and bronchitis. In people with asthma, ozone can trigger asthma attacks. Children and adults with asthma are at greater risk of attacks when ozone concentrations are high.

Children are particularly susceptible to ozone-related health problems because they spend more time outside than adults, their respiratory systems are still developing, and they breathe in more air per body weight than adults. Research studies suggest that active children in areas with high levels of ozone are *more likely to develop asthma* than children in areas where ozone levels meet the federal standard.

Atlanta's air has failed to meet the national standard for ozone since 1978. Athens, Augusta, Columbus, Macon, Savannah and the area south of Chattanooga may fail a new, tighter standard the Environmental Protection Agency (EPA) is expected to announce in 2011. Children living in these areas of Georgia are at risk of suffering breathing-related problems from ozone pollution.

What are the benefits of reducing ozone concentrations?

The correlation between Atlanta's high ozone days and increased asthma attacks is clear: there is a 37 percent increase in asthma-related emergency department visits following smog alert days. It is also clear that when ozone levels decrease, so do asthma attacks. This was best demonstrated during the 1996 Summer Olympic Games in Atlanta when there was a 22 percent drop in automobile traffic and a resulting 28 percent drop in ozone. Simultaneously, there was a 40 percent reduction in acute care visits for asthma, an 11 percent reduction in asthma-related pediatric emergency room visits and a 19 percent reduction in asthma-related hospitalizations.

What are the health effects of particulate matter?

In addition to ozone pollution, in metro Atlanta and Macon the air also contains unhealthy concentrations of fine particulate matter (PM), according to the annual limit for this pollutant set by EPA. Like ozone, PM can cause serious respiratory problems, including decreased lung function and worsened asthma symptoms. Fine and ultra-fine particulate matter is so tiny it can get into the bloodstream and also cause heart problems. In addition, exposure to PM has been linked to increased risk of premature death and cancer. As with ozone, children, the elderly and those with chronic lung or heart diseases are at greatest risk.

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More on Asthma in Georgia

According to Georgia Department of Community Health's 2010 Data Summary for Asthma:

- An estimated 12% of Georgia's children (about 297,000) have asthma.
- Hospitalization rates for children with asthma are highest for ages 0-4.
- An estimated 9% (about 600,000) of adults in Georgia have asthma.
- More than 10,000 hospitalizations occurred for asthma in Georgia in 2007.
- Average cost of a child with asthma admitted to the hospital is \$7,145.
- On average, from 2001-2007, there were 113 asthma deaths per year.
- Blacks in Georgia are 2.7 times more likely than whites to die from asthma.
- In 2007 in Georgia, emergency department charges related to asthma totaled \$63 million and hospitalization charges totaled more than \$132 million.

About Mothers & Others for Clean Air

Mothers & Others for Clean Air is a partnership of leading public health, environmental and child advocacy organizations dedicated to improving air quality by educating the public about the negative health impacts of air pollution and engaging people in both individual change and public policy advocacy.

American Lung Association in Georgia
www.lungusa.org/associations/states/georgia/

Children's Healthcare of Atlanta
www.choa.org

Georgia Conservancy
www.georgiaconservancy.org

Georgia PTA
www.georgiapta.org

Morehouse School of Medicine
www.msm.edu

Physicians for Social Responsibility
www.psr.org

Rollins School of Public Health at Emory
www.sph.emory.edu