



<http://www.epa.gov/schoolair/basic.html>  
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## Assessing Outdoor Air Near Schools

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### Basic Information

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#### Toxic air pollutants

The Clean Air Act includes a list of 187 toxic air pollutants, also known as air toxics. They are of potential concern because exposure to high levels of these pollutants over many decades could result in cancer and other serious health effects -- especially respiratory and neurological effects, which are the most common chronic effects from exposure to air toxics.

EPA is working with state, local, and tribal governments to reduce emissions of air toxics. Examples of toxic air pollutants include benzene, which is found in gasoline; perchlorethylene, which is emitted from some dry cleaning facilities; and methylene chloride, which is used as a solvent and paint stripper by a number of industries. Examples of other listed air toxics include acetaldehyde, acrolein, and metals such as arsenic, manganese, mercury, chromium, and lead compounds.

People are exposed to toxic air pollutants in many ways that can pose health risks, such as by:

- Breathing contaminated air.
- Eating contaminated food products, such as fish from contaminated waters; meat, milk, or eggs from animals that fed on contaminated plants; and fruits and vegetables grown in contaminated soil on which air toxics have been deposited.
- Drinking water contaminated by toxic air pollutants.
- Ingesting contaminated soil. Young children are especially vulnerable because they often ingest soil from their hands or from objects they place in their mouths.
- Touching (making skin contact with) contaminated soil, dust, or water (for example, during recreational use of contaminated water bodies).

The Clean Air Act requires EPA to limit emissions of air toxics through a series of industry-specific emissions regulations. Since 1990, the Agency has issued 96 of these regulations, covering 174 categories of industry that are major sources of air toxics emissions. EPA continues to issue regulations to limit air toxics emissions from smaller -- but numerous -- industries such as collision repair shops that often are found close to homes, schools and businesses. EPA also has issued regulations to reduce air toxics emissions from mobile sources such as cars and trucks.

From 1990 to 2005, emissions of air toxics in the United States declined 41 percent, as a result of federal and state regulations, and local emission reduction programs. However, levels of different air toxics can vary widely from place to place depending upon a number of factors including the amount and types of industry nearby, proximity to heavily traveled or congested roadways, and weather patterns.

#### National-Scale Air Toxics Assessment

#### More EPA programs about children's health and schools:

- Children's Health
- Healthy School Environments
- Drinking Water in Schools
- More about schools

The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing comprehensive evaluation of air toxics in the U.S. NATA assessments estimate the risk of cancer and other serious health effects from breathing (inhaling) air toxics. Assessments include estimates of cancer and non-cancer health effects based on chronic exposure from outdoor sources, including assessments of non-cancer health effects for Diesel Particulate Matter (PM) . Assessments provide a snapshot of the outdoor air quality and the risks to human health that would result if air toxic emissions levels remained unchanged.

The results of assessments are best used to focus on geographic patterns and ranges of risks across the country. You can use NATA to do all of the following:

- prioritize pollutants and emission sources
- identify locations of interest for further investigation
- provide a starting point for local-scale assessments
- focus community efforts
- inform monitoring programs

For example, EPA has used NATA to identify the schools targeted in its Schools Air Toxics Monitoring Initiative. In other cases, some assessments made at the community level have relied on NATA to prioritize data and research needs to better assess the local risk from air toxics. Communities have found that accessing NATA data helps inform and empower citizens to make local decisions concerning the health of their communities. In some cases, local projects can achieve environmental improvements sooner than federal regulations alone.

EPA uses the results of assessments to do all of the following:

- set priorities for improving emission inventories
- direct priorities in expanding EPA's air toxics monitoring network
- more effectively target risk reduction activities
- identify pollutants and industrial source categories of greatest concern
- help set priorities for the collection of additional information
- improve understanding of the risk from air toxics
- Link Air Toxics to Criteria Pollutant Program

To date, EPA has completed two assessments that characterize the nationwide health risk estimates from inhaling air toxics. You can access NATA assessments from individual assessment pages:

- [1999 National-Scale Air Toxics Assessment](#)
- [1996 National-Scale Air Toxics Assessment](#)

The next assessment based on 2002 emissions data will be available to the public shortly.

For more information about air toxics and NATA:

- <http://www.epa.gov/ttn/atw/allabout.html>
- <http://www.epa.gov/ttn/atw/natamain/>