

How Diesel Pollution Affects Your Health

AND WHAT YOU CAN DO ABOUT IT

WHAT IS DIESEL EXHAUST?



Diesel exhaust is a type of pollution that comes from the combustion of diesel fuel in heavy duty machinery, trucks, buses, trains, ships, and some cars. Diesel generators and construction equipment can also be important sources of diesel exhaust in a community. The exhaust is a mixture of many different kinds of gases and particles. It contains very small pieces of soot as well as harmful chemicals like benzene, arsenic, and nitrogen oxides. Nitrogen oxides from diesel exhaust combine with heat and sunlight in the air to form ground level ozone, or smog, another harmful air pollutant.

HOW ARE WE EXPOSED TO DIESEL EXHAUST?



People are exposed to diesel exhaust when they live, work, go to school, or play near major roadways. People are also exposed while driving or taking buses on highways and busy roads. Families living close to highways, ports, train lines, or truck stops may be especially vulnerable to high levels of diesel exhaust. So are people who work as truckers, bus drivers, construction workers, or other jobs where diesel engines are used.

WHAT HAPPENS WHEN WE BREATHE DIESEL EXHAUST?



The tiny particles of pollution in diesel exhaust, which often include toxic metals and chemicals, can lodge deep in the lungs and cause irritation. They are too small to get coughed out. They are so small – a fraction of the width of a human hair – that they can penetrate the lungs and enter the blood stream. They can irritate the eyes, nose, throat, and lungs. Inhaling diesel exhaust can cause coughing, headaches, lightheadedness, and nausea.

WHAT ARE THE LONG TERM EFFECTS OF BREATHING DIESEL EXHAUST?



In addition to causing short-term problems like coughing, headaches, and nausea, breathing diesel exhaust can damage both the lungs and the heart, and it has been linked to very serious health problems. Children, the elderly, and people with health problems are especially vulnerable to the impacts of diesel pollution.

- **CANCER.** The World Health Organization has classified diesel exhaust as a known human carcinogen, based on scientific evidence linking exposure to diesel exhaust to lung cancer.
- **ASTHMA.** Exposure to diesel exhaust, especially tiny particles of soot, can trigger asthma attacks. It also may cause the disease to develop in previously healthy people.
- **ALLERGIES.** Exposure to diesel exhaust can make allergic reactions worse in people who have dust, pollen, and other allergies.
- **LUNG INFECTIONS.** Exposure to diesel exhaust can increase the risk of developing bacterial and viral bronchitis and pneumonia.
- **HEART PROBLEMS.** Exposure to diesel exhaust can increase the risk of cardiovascular disease, ischemic heart disease, heart attacks, and premature death.
- **EMERGENCY ROOM VISITS AND HOSPITAL ADMISSIONS.** Exposure to diesel exhaust makes people sicker in general. It increases ER visits and hospital admissions for asthma attacks, heart attacks, respiratory illnesses, and stroke.

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HOW CAN WE REDUCE DIESEL EXHAUST?



There are many ways that communities and industries can reduce harmful diesel pollution.

- **REPLACE THE OLD WITH THE NEW.** Newer engines are designed to be more efficient and make less pollution. Companies should implement engine replacement of their diesel fleets, to protect their workers and surrounding communities.
- **BUT BEWARE OF “CLEAN DIESEL” VEHICLES.** In 2015, car company Volkswagen was found to have deliberately cheated emissions tests in 500,000 US cars. “Clean diesel,” at least for Volkswagen, was a high-pollution consumer fraud program.
- **USE CLEANER FUELS.** When engines use cleaner-burning fuels, it decreases the amount of diesel pollution. Reducing the sulfur content of diesel fuel can significantly reduce harmful air pollution.
- **TURN OFF ENGINES.** Delivery vehicles, school buses, and other diesel engines should be turned off while parked. Many places have laws about running engines unnecessarily (idling).
- **GO ELECTRIC.** Zero emission vehicles, though far from widespread, can someday play a key role in eliminating diesel exhaust. We call on the EPA to clean our air, protect our families from global climate change, and advance environmental justice by promoting zero emissions technologies at every port, rail yard, distribution center, and busy truck corridor across the country.

WHAT CAN MOMS DO?



Here's how we can clean up diesel pollution.

- **EDUCATION.** Help your community understand the health impacts of diesel exhaust. Talk with your friends and neighbors about the sources and impacts of diesel where you live.
- **REPLACE OLD DIESEL ENGINES IN YOUR COMMUNITY.** New diesel engines are more efficient and make less pollution than older engines. Contact your air quality agency to find out whether there are replacement programs for diesel engines in your area.
- **REPORT IDLING VEHICLES.** Are there local rules about engine idling? If there are anti-idling rules in your community, make sure they are being enforced. Find out where and how to report idling vehicles. If there aren't anti-idling rules in your community, learn more about rules in other places, and share that information with your elected officials.
- **DEMAND ELECTRIFICATION OF TRUCK FLEETS AND OTHER DIESEL POLLUTION SOURCES.** Contact your local officials to make sure your city is planning for the eventual electrification of truck fleets. This long-term solution will retain jobs, clean the air, and promote good health.
- **PROTECT YOUR CHILDREN AT SCHOOL AND DAYCARE.** Daycares and schools should be protected with indoor air filtration systems to reduce exposure to particulate matter. New facilities should be located away from major roadways. In places where new daycares and schools are being developed, make sure they are following EPA's School Siting Guidelines.
- **RAISE YOUR VOICE.** Reach out to your elected officials to protect those programs in place to reduce diesel emissions, and demand protection from diesel pollution where needed. Lawmakers work for you and their job is to listen to your concerns. Write, call, and meet with them. Make sure they understand that you don't want your community getting sicker because of diesel pollution.