

Factsheet:

Health Implications



Background

Research linking diesel exhaust and many of its components to health impacts has been exhaustively compiled by well-recognized organizations, including the Centers for Disease Control, the Environmental Protection Agency and others. Components of diesel emissions include carbon dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds and particulate matter. The emissions from commercial diesel engines can produce a range of short-term and long-term health risks and effects.

Health Effects

- The volatile organic compounds (VOC) in diesel exhaust, for instance, include toxics such as formaldehyde and benzene, and such carcinogens as polycyclic aromatic hydrocarbons (PAH).
- The exhaust's particulate matter carries adsorbed organic compounds (VOC, PAH) deep into the lungs.
- Nitrogen oxides are a pre-cursor for ozone, which forms when those oxides are subjected to heat and sunlight. The EPA has found that ozone causes respiratory illnesses, including childhood asthma, adult asthma, chronic bronchitis and emphysema, in more than 11% of the population.
- Carbon monoxide is a particular threat to the elderly and those with cardiovascular disease, while carbon dioxide, though not currently regulated, is an important greenhouse gas.
- Long-term exposure to diesel exhaust is known to increase the risk of lung and bladder cancer.