

## What can be done to prevent this harmful pollution?

- ▶ Stop idling! All vehicles pollute unnecessarily while idling.
- ▶ Support retrofit programs for diesel vehicles.
- ▶ Report diesel vehicles that idle more than three minutes by calling (877) WARN-DEP.
- ▶ Encourage your school district to eliminate school-bus idling.

For more information, visit [www.StopTheSoot.org](http://www.StopTheSoot.org) or contact the DEP Diesel Risk Reduction Team at (609) 633-2306.

## References

(1) Gauderman, W.J., et. al., "The Effect of Air Pollution on Lung Development from 10 to 18 Years of Age", *New England Journal of Medicine*, Vol. 351, No. 11, Sept. 9, 2004 and related study of truck density and "black smoke" inside schools, Brunekreef, B., et. al., "Air Pollution from Truck Traffic and Lung Function in Children Living Near Motorways. *Epidemiology* 8(3):298-303.

(2) Pandya, Robert et. al., "Diesel Exhaust and Asthma: Hypothesis and Molecular Mechanisms of Action, *Environmental Health Perspectives Supplements*, Volume 10, Number 1, February, 2002; Miyamoto, T., "Epidemiology of Pollution-Induced Airway Disease in Japan," *Allergy*, 52:30-34, 1997; Albright, J.F. and R.A. Goldstein, "Airborne Pollutants and the Immune System," *Otolaryngol Head and Neck Surgery*, 114(2):232-8, 1996.

(3) Mannino et al.: Surveillance for Asthma-United States, 1960-1995, *MMWR* April 24, 1998/47(SS-1);1-28.

(4) American Lung Association's "Asthma in Children" fact sheet, March 2003.

(5) NJDEP used methodology found in USEPA, Final Tier 2 Rule: Air Quality Estimation, Selected Health and Welfare Benefit Methods, and Benefits Analysis Results, EPA 420-R-99-032, December, 1999 and Abt Associates, "The Particulate-Related Health Benefits of Reducing Power Plant Emissions", October 2000 to calculate premature deaths.

(6) Dockery, D.W., et. al., "An Association Between Air Pollution and Mortality in Six U.S. Cities," *New England Journal of Medicine*, 329:1753-59, 1993. Pope III, C.A., et al., "Particulate Air Pollution as a Predictor of Mortality in a Prospective Study of U.S. Adults," *American Journal of Respiratory Critical Care Medicine*, 151:669-674, 1995; Shprentz, D., "Breathhtaking: Premature Mortality Due to Particulate Air Pollution in 239 American Cities," *New York, Natural Resources Defense Council*, May 1996, pp. 13-32.; National Morbidity and Mortality and Air Pollution Study, Health Effects Institute, May 2003; American Cancer Society, *Journal of the American Medical Association*, 2002.

(7) "Final Report to Congress on Benefits and Costs of the Clean Air Act, 1970 to 1990", EPA 410-R-97-002 (October 1997) at I-23.

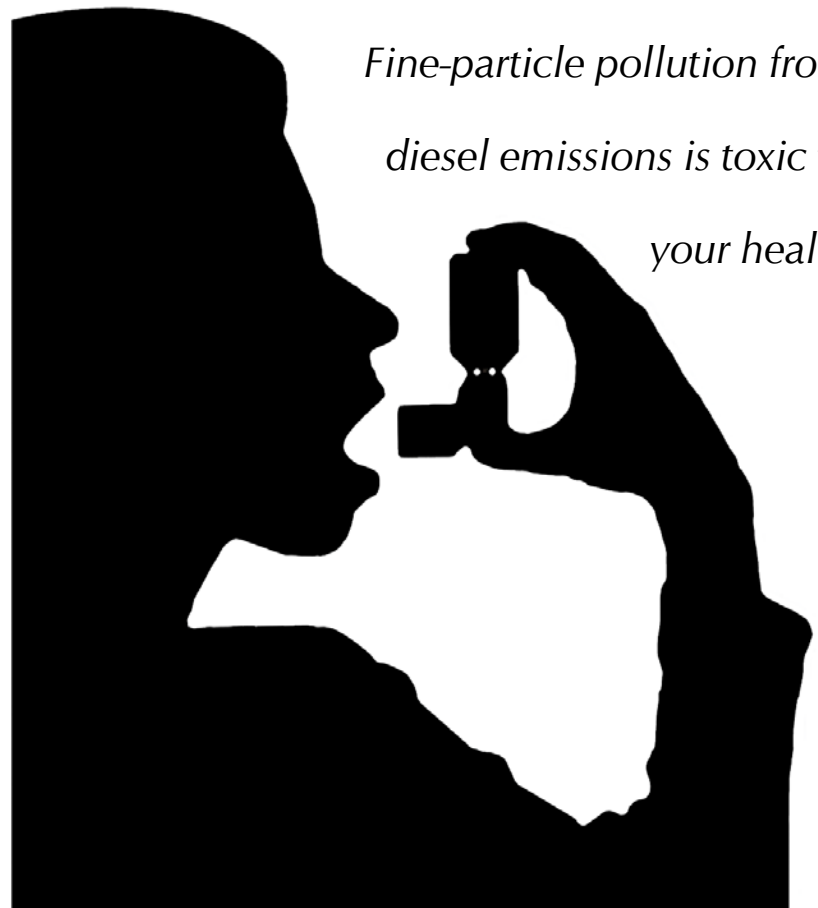
(8) American Heart Association Scientific Statement, [www.americanheart.org/presenter.jhtml?identifier=3022282](http://www.americanheart.org/presenter.jhtml?identifier=3022282)



Chris Christie, Governor  
Bob Martin, Commissioner  
Mary E. O'Dowd, M.P.H., Acting Commissioner



# Gasping for breath?



*Fine-particle pollution from  
diesel emissions is toxic to  
your health*

# What Everyone Should Know about the Harmful Health Effects of Fine-Particle Pollution from Diesel Emissions

- ◆ The New England Journal of Medicine reports that exposure to air pollution may cause chronic decreases in lung function by age 18. (1)
- ◆ Fine-particle pollution may worsen the symptoms of asthma and can trigger an asthma attack. (2)
- ◆ Children breathe up to 50 percent more air per pound of body weight than adults and, with their immune and respiratory systems still developing, are particularly susceptible to both acute and chronic respiratory problems such as asthma.
- ◆ Asthma rates among children have increased 160% in 20 years, with urban asthma rates even higher. (3)
- ◆ The American Lung Association reports that asthma is the leading serious, chronic illness among children and the leading cause of school absenteeism due to chronic disease. (4)



- ◆ In New Jersey, fine-particle pollution may actually cause more premature deaths than homicides and car accidents combined. (5)
- ◆ Studies by the Harvard Medical School conclude that fine-particle pollution is linked to premature mortality. (6) It is estimated that people with heart or lung disease living in areas with higher pollution die 14 years earlier from exposure to fine-particle pollution. (7)
- ◆ Residents of urban communities with higher pollution experience a 26-percent higher rate of premature mortality due to fine-particle pollution than residents who live in urban communities meeting pollution standards. (6)
- ◆ According to the American Heart Association, elderly patients, diabetics and people with underlying heart or lung disease may be at particularly increased risk of health complications when exposed to high levels of fine-particle pollution. This may be especially true for persons living in disadvantaged communities. (8)
- ◆ Fine-particle pollution may cause chest irritation in anyone. For sensitive people such as those with allergies, fine-particle pollution can worsen their symptoms.