American Lung Association.

Rhode Island **Healthy Air** Collaborative

How does air pollution impact my health?

Air pollution can harm children and adults in many ways

Respiratory

- Wheezing and coughing
- Shortness of breath
- Asthma attacks
- Worsening COPD
- Lung cancer

Other Illness & Conditions

- Premature death
- Susceptibility to infections
- Heart attacks and strokes
- Impaired cognitive functioning
- Metabolic disorders
- Preterm births and low birth weight

Ozone air pollution, sometimes **known as smog**, is one of the most widespread pollutants in the United States. It is also one of the most dangerous. When inhaled, ozone damages the tissues of the respiratory tract, causing irritation and inflammation, **like a "sunburn" of the lung**.

Particle air pollution often comes from sources that burn fuel. Sometimes you can see particle pollution, **like smoke**. It can interfere with how the lungs grow and work and **increase the risk of heart disease, lung cancer, and asthma attacks,** and can interfere with the growth and work of the lungs.

Who's at risk?

The health burden of air pollution is not evenly shared. Some people are more likely to be affected by air pollution than others. Some things can change a person's level of risk:

Location – Where someone lives, where they go to school, and where they work make a big difference in how much air pollution they breathe. In general, the more air pollution breathed, the greater the risk of harm.

Susceptibility – Pregnant people, children, older adults, and people living with chronic conditions, especially heart and lung disease, may be more likely to experience health impacts from air pollution than other people

Access to healthcare – Whether or not a person has health coverage, a doctor or other healthcare provider, and access to the health information they can understand may influence their overall health status and how they are impacted by air pollution.

Psychosocial stress – Some people live with more stress in their lives stemming from things like poverty, racial/ethnic discrimination, and fear of deportation. Research is showing this stress can make the harmful effects of air pollution worse.

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Zeroing in on Healthy Air 2022

Transportation emissions are a leading source of air and climate pollutants that threaten health. The transition to **zero-emission vehicles powered by zero-emission electricity** would benefit people across the United States and especially those who live near power plants and transportation hubs like highways, ports, and warehouses. The **Zeroing in on Healthy Air** report highlights the urgency of moving to zero-emission transportation and electricity generation to **protect our air, our health, and our climate.**

Transitioning to zero-emission transportation in Rhode Island would result in the following:

348 avoided deaths

6,570 avoided asthma attacks

35,600 avoided lost work days

$3.8 billion in public health benefits

State of the Air 2022

The "**State of the Air**" 2022 report finds that despite decades of progress on cleaning up sources of air pollution, **more than 40% of Americans**—over 137 million people—are living in places with failing grades for **unhealthy levels of particle pollution or ozone.** The more you learn about the air you breathe, the more you can protect your health and take steps to make the air cleaner and healthier.

Rhode Island Grades: High Ozone

- **Providence County: F**
- **Kent County: D**
- **Washington County: D**
- **Newport and Bristol County currently do not report this data**

Providence-Boston-Worcester Metro:

- **Ranked as the 47 most polluted city for ozone pollution**
- **Providence County continues to rank as the most polluted county in the Boston-Worcester-Providence metro area for year-round particle pollution**

Learn more

Lung.org/clean-air

References:

- U.S. EPA. (2021, Sep). Ozone Pollution and Your Patients' Health: Health Effects of Ozone in the General Population. https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population
- World Health Organization. (2021, Sep). Factsheets: Ambient (outdoor) air pollution..
- Zhang,J., Wei,Y., and Zhangfu Fang, Z. (2019, Oct.). Ozone Pollution: A Major Health Hazard Worldwide. Front Immunol. 10, 2518.
- Mendola, P., Ha, S., Pollack, A. Z., Zhu, Y., Seeni, I., Kim, S. S., Sherman, S., & Liu, D. (2017). Chronic and acute ozone exposure in the week prior to delivery is associated with risk of stillbirth. Int. J. Environ. Res. Public Health,
- US Department of Energy, Reducing Pollution with Electric Vehicles (2020). https://www.energy.gov/eere/electricvehicles/reducing-pollution-electric-vehicles
- Zeroing in on Healthy Air (2022) https://www.lung.org/clean-air/electric-vehicle-report#additional-materials
- State of the Air (2022) https://www.lung.org/research/sota