

## Respiratory disease and climate change

### Maine: the tailpipe of the US

- Dirty power plants to our west dump particulate matter, chemical pollutants (like mercury), and carbon dioxide into the atmosphere, much of which is carried by prevailing winds and deposited in Maine.
- The fumes created by burning hydrocarbons (both from industry and auto exhaust) react with sunlight and heat to produce ozone-containing smog. During weather inversions where smog is trapped in a region, the results can be deadly.
- With the ongoing Federal rollback of clean air regulations and EPA enforcement, we can expect increasing amounts of visible pollution and invisible ozone to drift over our state.



Androscoggin River, 1973, US EPA



Photo courtesy of Thomas Widmann

### Vulnerable populations

Many Maine citizens already are vulnerable to the effects of climate change. According to the Maine CDC, our state has one of the highest rates of asthma in the US both for children and for adults.

- For susceptible children and toddlers, particulate matter and ozone can turn a typical cold into an asthma attack
- Children and adults with allergic triggers for their breathing problems will have to contend with a longer pollen season as climate change worsens
- People with chronic illness are more sensitive to air pollution and ozone as well as to heat stress
- The elderly, as well as persons with chronic heart, lung, or kidney conditions, are more sensitive to the inflammatory effects of air pollution and ozone as well as being more prone to heat stress
- **Even healthy people can experience health problems when the heat index is elevated or on high ozone days - which is why the Maine CDC issues statewide health alerts**

## What You Can Do

*“As a person becoming ill develops a fever as a sign, this planet has begun to show signs of illness, and human illness or death is certain to follow. History is full to overflowing with examples. The best action that can be taken to avoid tragedy, whether managing the illness of one or many, the earth or humanity, is early intervention.” - Lani Graham, MD, MPH; PSR Maine Board Member and Former Director, Maine Bureau of Health*

### On high heat and ozone days

- Stay indoors especially if you have respiratory illness. Keep cool with air conditioning or find a cooling center (Maine communities are now beginning to use public buildings as cooling centers)
- If you must be outside, keep hydrated, drink plenty of water and limit heavy exertion
- If you have asthma be sure to take your preventative medication

### What we can do together



- Support and use clean energy like solar and wind
- Make your home and auto more energy efficient
- Try to eat more locally grown and organic foods
- Eat less meat and more plant based meals
- Waste less food
- Urge the businesses you patronize to become energy-efficient
- Support legislation that promotes clean energy
- Support candidates who are serious about reducing emissions of carbon dioxide and other greenhouse gases
- Work with and/or support local groups and organizations to advocate for global climate change policy
- Support efforts that require all power plants to meet federal air pollution standards

Check out the full *Death by Degrees* report on our website for more information.



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## ASTHMA Facts

### How Asthma Affects Mainers

**Did you know that:**

1. Maine has some of the highest rates of asthma in the US.
2. Asthma is one of the leading reasons kids miss school.
3. It is the 4th most common reason for adults to miss work.
4. In children, boys have a higher rate of asthma than girls.
5. Women have a higher rate of asthma than men.
6. Asthma affects our schools, workplace and economy.
7. Asthma can be controlled.

A Message from the Maine Asthma Prevention and Control Program.

Department of Health and Human Services  
Maine People Living Safe, Healthy and Productive Lives

[www.mainepublichealth.gov](http://www.mainepublichealth.gov)

