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Environmental Health Project Statement on Air Quality Concerns from Canadian Wildfires

As wildfires burn throughout Eastern Canada, smoke from those fires is blanketing the Northeastern United States and other parts of the country. While the haze this smoke produces visibly darkens the skies, it’s the invisible that should be of major concern for all residents, especially for vulnerable people.

Wildfire smoke contains particulate matter, tiny liquid and solid particles found in the air we breathe. The most concerning particles are the smaller ones—those 2.5 microns in diameter, called PM$_{2.5}$—which are about one twentieth the diameter of a human hair. These fine particles have no trouble entering the body through inhalation. They get deep into the lungs, where some cross into the bloodstream and are carried to various body cells, further damaging health.

Anyone with asthma and other respiratory conditions should be especially wary of being exposed to these particles. Children, the elderly, pregnant people, and anyone with preexisting health conditions should also be kept from exposure to outdoor air as much as possible. People living in low-lying areas like river valleys tend to be exposed to more particulate matter. People living close to existing industrial activities, such as oil and gas operations, may experience a compounding of exposure to pollution and worsening health impacts.

EHP encourages all residents to take precautions if they live in an area where smoke from wildfires is present or anywhere industrial pollution is emitted. Limit outdoor activity, close windows and doors, and follow up with a healthcare provider if you experience health effects. Use an air purifier that eliminates particle pollution. A less expensive version of an air filter can be made from a MERV filter and a box fan. If you must be outside, wear a mask.

Check airnow.gov for up-to-date air quality reports. More information on how to protect your health from toxic emissions can be found on our website.

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Environmental Health Project
About EHP

The Environmental Health Project (EHP) defends public health in the face of oil and gas development. We provide frontline communities with timely monitoring, interpretation, and guidance. We engage diverse stakeholders: health professionals, researchers, community organizers, public servants, and others. We do so because knowledge protects health.