PM2.5 Oxidative Potential, Lung Cancer Mortality, and Acute Cardiorespiratory Outcomes in Ontario, Canada

Scott Weichenthal
M.Sc(A), PhD
Health Canada
Air Health Effects Science Division

Fine particulate air pollution (PM2.5) is known to contribute to adverse cardiovascular and respiratory health outcomes. However, current mass-based regulations treat all PM2.5 as equally toxic despite potential regional differences in particle composition or biological activity that may impact overall toxicity. This lecture will provide an overview of recent studies examining regional differences in the ability of PM2.5 to cause oxidative stress and how these differences may modify the association between PM2.5 and lung cancer, myocardial infarction, and respiratory illnesses.

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