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**Oxidative stress: the missing link between PM toxicology and epidemiology?**

Numerous epidemiological studies have supported an association between ambient particulate pollution and increased hospitalization and mortality. The majority of these studies do not support a threshold concentration below which no health effect are seen which is difficult to understand from a toxicological viewpoint. This problem was addressed in a recently completed EU project HEPMEAP (Health Effects of Particles from Motor Engines Exhaust and Ambient Air Pollution). By measuring the oxidative potential of ambient particles collected outside schools with varying traffic exposure we found that PM oxidative potential was a better surrogate of PM associated health effects than PM mass. These findings provide a possible link between PM epidemiology and toxicology.

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