Study links prenatal exposure to smog, lower IQ

Lindsey Tanner, Associated Press
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Researchers for the first time have linked air pollution exposure before birth with lower IQ scores in childhood, bolstering evidence that smog may harm the developing brain.

The results are in a study of 249 children of New York City women who wore backpack air monitors for 48 hours during the last few months of pregnancy. They lived in mostly low-income neighborhoods in northern Manhattan and the South Bronx. They had varying levels of exposure to typical kinds of urban air pollution, mostly from car, bus and truck exhaust.

At age 5, before starting school, the children were given IQ tests. Those exposed to the most pollution before birth scored on average four to five points lower than children with less exposure.

That's a big enough difference that it could affect children's performance in school, said Frederica Perera, the study's lead author and director of the Columbia Center for Children's Environmental Health.

While future research is needed to confirm the results, the findings suggest exposure to air pollution before birth could have the same harmful effects on the developing brain as exposure to lead, said Patrick Breysse, an environmental health specialist at Johns Hopkins' school of public health.
And along with other environmental harms and disadvantages low-income children are exposed to, it could help explain why they often do worse academically than children from wealthier families, Breysse said.

The study in the August edition of Pediatrics was being released today.

The researchers said they plan to continuing monitoring and testing the children to learn whether school performance is affected and if there are any additional long-term effects.

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