

Health Impact	Links	Quotes
Attention Deficit Hyperactivity Disorder (ADHD)	<p>Air pollution linked to children's attention problems, Environmental Health News</p> <p>Children's Attention Deficit Linked to Air Pollution, Scientific American</p>	<p>“New York City children exposed in the womb to high levels of pollutants in vehicle exhaust had a five times higher risk of attention problems at age 9” (Scientific American)</p> <p>“The study adds to earlier evidence that mothers' exposures to polycyclic aromatic hydrocarbons (PAHs), which are emitted by the burning of fossil fuels and other organic materials, are linked to children's behavioral problems associated with Attention Deficit Hyperactivity Disorder...” EHN</p>
Anxiety and Depression	<p>Air pollution linked to children's attention problems, Environmental Health News</p> <p>Mom's Exposure to Air Pollution Can Increase Kids' Behavior Problems, Time</p>	<p>“Air pollution has been linked to adverse effects on attention span, behavior and cognitive functioning in research from around the globe. There is little question that air pollutants may pose a variety of potential health risks to children of all ages, possibly beginning in the womb,” EHN</p> <p>“Pregnant women who are exposed to high levels of air pollution may be putting their children at increased risk of developing anxiety, depression and attention problems” Time</p>
Autism and Autism Spectrum Disorder	<p>Largest-ever Study on Autism & Pollution Shows Strong Link During Pregnancy, Autism Speaks</p>	<p>“A new nationwide study found a doubled autism risk among children of women exposed to high levels of particulate air pollution during pregnancy.” Autism Speaks</p>

	<p>Autism Spectrum Disorder and Particulate Matter Air Pollution before, during, and after Pregnancy: A Nested Case–Control Analysis within the Nurses’ Health Study II Cohort, Environmental Health Perspectives</p>	
Birth Defects	<p>Air pollutants linked to higher risk of birth defects, researchers find, Stanford Medicine News Center</p> <p>Maternal Exposure to Criteria Air Pollutants and Congenital Heart Defects in Offspring: Results from the National Birth Defects Prevention Study, Environmental Health Perspectives</p>	<p>“Breathing traffic pollution in early pregnancy is linked to a higher risk for certain serious birth defects” (Stanford)</p> <p>“Positive associations were observed between exposure to nitrogen dioxide and coarctation of the aorta and pulmonary valve stenosis. Exposure to fine particulate matter was positively associated with hypoplastic left heart syndrome but inversely associated with atrial septal defects.” EHP</p>
Brain Cancer	<p>In Utero and Early-Life Exposure to Ambient Air Toxics and Childhood Brain Tumors: A Population-Based Case–Control Study in California, Environmental Health Perspectives</p>	<p>“Our data suggest that in utero and infancy exposures to air toxics generated by industrial and road traffic sources may increase the risk of PNET and medulloblastoma” EHP</p>
Impulsivity and Emotional Problems	<p>Prenatal Exposure to (PAH) Air Pollution Linked to Impulsivity, Emotional Problems in Children, CCCEH</p>	<p>“Exposure to common air pollutants during pregnancy may predispose children to problems regulating their thoughts, emotions, and behaviors later on” CCCEH</p>
Insulin resistance & Diabetes	<p>(NO2 & PM) Air Pollution Linked To Insulin Resistance, Diabetes In Children, Medical News Today</p> <p>Long-term exposure to traffic-related air pollution and insulin</p>	<p>“The researchers found that in all adjusted and raw models, levels of insulin resistance were higher in children with greater exposure to air pollution” MNT</p>

	resistance in children: results from the GINIplus and LISApus birth cohorts , Journal Diabetologia	
Leukemia	A Review and Meta-Analysis of Outdoor Air Pollution and Risk of Childhood Leukemia , HHS Public Access	<p>“Overall, our results suggest that traffic air pollutants increase risk of childhood leukemia, both among all leukemias as well as within the major subtypes (ALL and AML)” HHS</p>
Low birth weight	Air pollution tied to low birth weight , Medical News Today Air pollution increases chances of low birth-weight babies , Guardian	<p>“A large study spanning four continents finds that babies carried by mothers exposed to outdoor air pollution caused by tiny particles in fumes from traffic, heating systems, and coal-fired power stations, are more likely to be of low birth weight. Low birth weight babies are at higher risk for health problems and death. Although most survive, they also have a higher chance of developing chronic health problems like diabetes and heart disease later in life.” MNT</p>
Lung damage and other respiratory problems	University of Southern California Children’s Health Study , USC Particulate air pollution and impaired lung function , NIH Long-term Exposure to PM10 and NO2 in Association with Lung Volume and Airway Resistance in the MAAS Birth Cohort , Environmental Health Perspectives	<p>“Living in communities with higher pollution levels (pollutants such as nitrogen dioxide, acid vapor, and elemental carbon, which all come from vehicle emissions and fossil fuel combustion) causes measurable lung damage (reduced growth and poorer lung function)” USC</p> <p>“Several studies show that exposure to PM in utero is associated with decreased lung function in children, suggesting that fetal lung growth is impacted by maternal PM exposures” NIH</p>
Mental Illness	Air pollution linked to increased mental illness in children , Guardian	<p>“The results can mean that a lower concentration of air pollution, first and foremost from traffic, may reduce psychiatric disorders in children and adolescents,” said</p>

	<p>Association between neighbourhood air pollution concentrations and dispensed medication for psychiatric disorders in a large longitudinal cohort of Swedish children and adolescents, BMJ Open</p>	<p>Anna Oudin, at Umeå University, who led the study. “I would be worried myself if I lived in an area with high air pollution.” Guardian</p>
Obesity	<p>Prenatal Exposure to (PAH) Air Pollution Linked to Childhood Obesity, CCCEH</p> <p>Association of Childhood Obesity With Maternal Exposure to Ambient Air Polycyclic Aromatic Hydrocarbons During Pregnancy, CCEH</p>	<p>“...pregnant women in New York City exposed to higher concentrations of chemicals called polycyclic aromatic hydrocarbons, or PAH, were more than twice as likely to have children who were obese by age 7 compared with women with lower levels of exposure.” CCCEH</p>
Preterm birth	<p>Even before they start breathing, babies can be harmed by air pollution, scientists say, Washington Post</p> <p>Exposure to High Levels of Small Particle Air Pollution Associated with Higher Risk of Preterm Birth, Cincinnati Children’s Hospital</p> <p>Particulate Matter Exposure and Preterm Birth: Estimates of U.S. Attributable Burden and Economic Costs, Environmental Health Perspectives</p>	<p>“We estimate that decreasing the amount of particulate matter in the air below the EPA’s standard threshold could decrease preterm birth in women exposed to high levels of small particulates by about 17 percent, which corresponds to a 2.22 percent decrease in the preterm birth rate in the population as a whole” Cincinnati Children’s Hospital</p>
Reduced intelligence	<p>Prenatal Airborne Polycyclic Aromatic Hydrocarbon Exposure and Child IQ at Age 5 Years, Journal Pediatrics</p>	<p>“These results suggest that prenatal exposure to airborne PAHs adversely affects children’s cognitive development by 5 years of age, with potential implications for school performance.” EHP</p>

	<p><u>Prenatal Exposure to Airborne Polycyclic Aromatic Hydrocarbons and Children's Intelligence at 5 Years of Age in a Prospective Cohort Study in Poland</u>, Environmental Health Perspectives</p>	<p>"These results provide evidence that environmental PAHs at levels encountered in New York City air can affect children's IQ Adversely " Pediatrics</p>
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