

## Air pollution linked to cerebral palsy

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SMOG, smoke and fumes could be leaving babies in the womb vulnerable to developing cerebral palsy, according to a team of North America-based doctors and scientists. Writing in medical journal JAMA Network Open, the Harvard University-led researchers said inhaling certain fine particles was associated with an “increased risk” of the condition, which is the commonest cause of infant disability and which is found in between one and four live births per 1,000, depending on the location.

The particles were described as PM<sub>2.5</sub>, where PM refers to ‘particulate matter’ and the number to the size of particle. The United States Environmental Protection Agency (EPA) describes PM<sub>2.5</sub> as meaning “fine inhalable particles, with diameters that are generally 2.5 micrometres and smaller.”

The team said it came to its conclusion after carrying out a “large cohort study of singleton full term births in Canada” – work that took in information about over 1.5 million newborns.

The team said they wanted to follow up on earlier research showing links between prenatal air pollution and “decelerated neurological development early in life” to see if there was a further link to cerebral palsy.

Previous research had shown that “air pollutants in maternal circulation can cross the placenta and directly affect the fetus,” they said, warning that “brain development starts as early as the third week of gestation and continues until birth.”

Research published in March by the American Medical Association showed pre-birth exposure to air pollution could leave babies vulnerable to developing asthma.

Around two-thirds of the world’s annual air pollution-related deaths have been in Asia in recent years, while levels of air pollution in Europe and North America remain above what most scientists view as healthy, according to University of Chicago research published in 2023. – dpa