

EXPOSURE TO AIR POLLUTION LINKED WITH LOWER BIRTH WEIGHT IN BABIES: STUDY

Relevant for: Environment | Topic: Environmental Pollution - Air, Water, Soil & E-waste

To enjoy additional benefits

CONNECT WITH US

September 08, 2023 06:28 pm | Updated 07:40 pm IST

COMMENTS

SHARE

READ LATER

There is a need to reduce air pollution and make towns and cities greener to help protect babies and their developing lungs from potential harm, a new research said. | Photo Credit: AP

Exposure to [air pollution](#), even at relatively low levels, is associated with women giving birth to smaller babies, according to a study.

The research, to be presented at the European Respiratory Society International Congress in Milan, Italy from September 9-13, also shows that women living in greener areas give birth to bigger babies and this may help counteract the effects of pollution.

There is a strong relationship between birthweight and lung health, with low birthweight children facing a higher risk of asthma and higher rates of chronic obstructive pulmonary diseases (COPD) as they grow older, the researchers said.

There is a need to reduce air pollution and make towns and cities greener to help protect babies and their developing lungs from potential harm, they said.

Also Read | [For an expanse of blue, with air so clean](#)

The study was based on data from the Respiratory Health in Northern Europe (RHINE) study and presented by Robin Mzati Sinsamala, a researcher at the University of Bergen (UiB), Norway.

It included 4,286 children and their mothers living in five European countries -- Denmark, Norway, Sweden, Iceland and Estonia.

The researchers gauged the greenness of the areas where the women were living during pregnancy by measuring the density of vegetation on satellite images. This vegetation includes forests and farmland as well as parks in urban areas.

They also used data on five pollutants: nitrogen dioxide (NO₂), ozone, black carbon, and two types of particulate matter (PM_{2.5} and PM₁₀).

The average levels of air pollution were within European Union standards.

Explained | [Is air pollution driving the rise of antibiotic resistance?](#)

Researchers compared this information with the babies' birthweights, taking account of factors that are known to affect birthweight, such as mother's age, whether the mothers smoked or had any other health conditions.

They found that higher levels of air pollution were linked with lower birthweights, with small particulate matter PM2.5, relatively bigger pollution particles PM10, NO2 and black carbon associated with average reductions in birth weight of 56, 46, 48 and 48 grammes, respectively.

When researchers took greenness into account, the effect of air pollution on birthweight was reduced. Women who lived in greener areas had babies with slightly higher birth weight -- 27 grammes heavier on average -- than mothers living in less green areas.

"The time when babies are growing in the womb is critical for lung development. We know that babies with lower birthweight are susceptible to chest infections, and this can lead on to problems like asthma and COPD later on," Sinsamala said.

"Our results suggest that pregnant women exposed to air pollution, even at relatively low levels, give birth to smaller babies. They also suggest that living in a greener area could help counteract this effect," the researcher added.

The team noted that it could be that green areas tend to have lower traffic or that plants help to clear the air of pollution, or green areas may mean it is easier for pregnant women to be physically active.

COMMENTS

SHARE

[environmental issues](#) / [air pollution](#) / [weather science](#) / [pollution](#)

BACK TO TOP

Comments have to be in English, and in full sentences. They cannot be abusive or personal. Please abide by our [community guidelines](#) for posting your comments.

We have migrated to a new commenting platform. If you are already a registered user of The Hindu and logged in, you may continue to engage with our articles. If you do not have an account please register and login to post comments. Users can access their older comments by logging into their accounts on Vuukle.

END

Downloaded from [crackIAS.com](#)

© **Zuccess App** by crackIAS.com