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Disinfectants use during pregnancy linked to childhood asthma, eczema

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Children whose mothers used disinfectants during pregnancy were more likely to develop asthma or eczema, a study published Monday found.

The study, published online in *Occupational and Environmental Medicine*, suggests that pregnant women's use of disinfectants may be a risk factor for asthma and eczema in their children, but since it was an observational study, it was unable to establish cause.

Researchers used data on 78,915 mother-child pairs who participated in the Japan Environment and Children's Study to analyze whether mother's exposure to disinfectants in the workplace was associated with higher risk of allergic diseases in their 3-year-old children.

Exposure to disinfectants in the workplace previously has been linked to asthma and dermatitis in the workers exposed to them, but the new study looked specifically at the impact of disinfectant use during pregnancy and subsequent development of allergic disease in children.

Children were significantly more likely to have asthma or eczema if their mothers used disinfectant one to six times a week compared to mothers who never used disinfectants.

Moreover, children of women who used disinfectants every day during pregnancy had the highest risk of a diagnosis — 26 percent greater for asthma and 29 percent greater for eczema — than children of mothers who were never exposed to disinfectants.

Disinfectants are used frequently in hospitals and medical facilities, and the COVID-19 pandemic has increased their use, researchers noted.

They also noted some limitations of the study, including that the mothers self-reported use of disinfectants and that the specific type of disinfectants were not identified.

Still, "our findings indicate that exposure to disinfectants during pregnancy exerts an effect on allergies in offspring regardless of whether the mother returns to work when the child is 1-year-old, and suggest an effect by exposure during pregnancy alone," researchers said in a statement.

"Given the current increased use of disinfectants to prevent new coronavirus infections, it is of great public health importance to consider whether prenatal disinfectant exposure is a risk for the development of allergic diseases."