

Exposure to smoking before and after birth linked to hearing impairment in toddlers

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Exposure to tobacco smoke prenatally and postnatally was associated with hearing impairment in a *Paediatric and Perinatal Epidemiology* study of young children in Japan.

In the study of 50,734 [children](#) aged 3 years who were born between 2004 and 2010, 3.8% were exposed to smoking only during pregnancy; 15.2% were exposed in utero to only maternal past smoking; 3.9% were exposed only to second-hand smoke at 4 months; and 0.9% were exposed to [tobacco smoke](#) during pregnancy and at 4 months.

The prevalence of hearing impairment at age 3 years was 4.6%. Compared with children not exposed to tobacco smoke prenatally and at 4 months, children exposed to only maternal past smoking during pregnancy had a 26% increased relative risk of [hearing impairment](#), children exposed to only second-hand smoke at 4 months had a 30% increased relative risk, those exposed to only smoking during pregnancy had a 68% increased relative risk, and those exposed to smoking during pregnancy and second-hand smoke at 4 months had a 2.4-times increased relative risk.

"Although public health guidelines already discourage smoking during pregnancy and in front of children, some women still smoke during pregnancy and many young children are exposed to second-hand smoke," said senior author Dr. Koji Kawakami, Kyoto University, in Japan. "This study clearly shows that preventing exposure to tobacco smoke during pregnancy and postnatally may reduce the risk of hearing problems in children. The findings remind us of the need to continue strengthening interventions to prevent [smoking](#) before and during pregnancy and exposure to [second-hand smoke](#) in children."

More information: Calistus Wilunda et al, Exposure to tobacco smoke prenatally and during infancy and risk of hearing impairment among children in Japan: A retrospective cohort study, *Paediatric and Perinatal Epidemiology* (2018). [DOI: 10.1111/ppe.12477](https://doi.org/10.1111/ppe.12477)

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