



RESEARCH NEWS

Paracetamol exposure prenatally and in infancy is linked to asthma, study shows

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Prenatal exposure to paracetamol and exposure during infancy are both independently associated with a raised risk of asthma, a follow-up study of children in Norway has shown.¹

Paracetamol has previously been linked to a higher risk of asthma, but the relative importance of exposure before birth and in infancy has been unclear.

Researchers investigated this using data from the Norwegian Mother and Child Cohort Study, which recruited and studied pregnant women from 1999 to 2008 and then followed up their children.

The team evaluated prenatal paracetamol exposure and the use of the drug in children during the first six months of life, in relation to the risk of having asthma, at age 3 years in 53 169 children and at age 7 years in 71 000 children. Just over a quarter of the children (27.9%) were exposed to paracetamol during pregnancy, 15.5% in infancy, and 19.1% during pregnancy and infancy.

Results showed that 5.7% of the children had current asthma at age 3 and 5.1% at age 7. Consistent associations were found between exposure to paracetamol, either prenatally or during infancy, and having asthma at ages 3 and 7.

Prenatal exposure to paracetamol was linked to a small increase in the risk of a child having asthma at age 3 (adjusted relative risk 1.13 (95% confidence interval 1.02 to 1.25)). Taking the drug in infancy showed an independent increase in asthma risk among 3 year olds (1.29 (1.16 to 1.45)).

A similar rise in the risk of asthma from paracetamol exposure was seen in children at age 7: prenatal paracetamol was associated with a 27% increase in asthma at 7 years (1.27 (1.09 to 1.47)), while exposure in infancy was linked to a 24% higher risk (1.24 (1.03 to 1.48)).

“Uncovering potential adverse effects is important, as paracetamol is the most commonly used painkiller among

pregnant women and infants,” said Maria Magnus, study coauthor, from the Norwegian Institute of Public Health in Oslo.

The research group also looked for any differences in the risk of asthma from prenatal paracetamol exposure depending on why it was taken. They found similar associations with paracetamol use for different indications, including pain, respiratory tract infections, influenza, and fever, and the strongest association was where the mother used the drug in pregnancy for more than one indication. Pain was also associated with asthma development without the use of paracetamol.

“Our study is by far the largest to provide evidence that prenatal and infant paracetamol exposures have independent positive associations with asthma development,” said the researchers. But they said that, without further study, their findings do not currently mean that recommendations need to change on the use of paracetamol in pregnancy.



¹ Magnus MC, Karlstad O, Haberg SE, et al. Prenatal and infant paracetamol exposure and development of asthma: the Norwegian Mother and Child Cohort Study. *Int J Epidemiol* 2016; doi: 10.1093/ije/dyv366.

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