

Confirmed link between maternal asthma and child allergies

July 29 2024, by Rhiannon Koch



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For the first time, researchers from the University of Adelaide's Robinson Research Institute, University of South Australia and University of Queensland have confirmed maternal asthma increases risks of child allergies.



In a <u>systematic review</u> of more than 20,000 sources, Ph.D. student Andrea Roff and team discovered children whose <u>mothers</u> have <u>asthma</u> are 76% more likely to have the condition themselves.

The review is the first time anyone has brought together the data on how severity and control of asthma during pregnancy affects allergy and asthma outcomes in children. It also found that better asthma control during pregnancy reduces the risk in children.

The findings are <u>published</u> in the *BJOG: An International Journal of Obstetrics & Gynaecology*.

"We found maternal asthma is associated with an increased risk of wheeze (59%), food allergy (32%), eczema (17%) and <u>hay fever</u> (18%)," said Roff.

"Associations between maternal asthma and risks of progeny asthma were similar when the exposure was maternal asthma during the index pregnancy or as a history of asthma, consistent with the chronic nature of asthma.

"Uncontrolled and more severe maternal asthma during the index pregnancy were also associated with increased risk of progeny asthma.

"There was <u>insufficient evidence</u> to assess impacts of maternal asthma control and severity on progeny wheeze or allergic disease, nor of asthma exacerbations or inactive v active asthma during pregnancy."

Senior author and Associate Professor Kathy Gatford said the review also found better asthma control during pregnancy reduced the risk for children.

"Our analysis suggests programs targeted to improve pregnancy



management of asthma might improve long-term progeny health as well as reduce risks of pregnancy complications," said Associate Professor Gatford.

"When mothers have asthma, risks of asthma in progeny are 13% lower when maternal asthma is well-controlled, and 19% lower in those whose mothers had mild asthma compared to moderate or severe asthma.

"This provides a new motivation to work hard on asthma control during pregnancy.

"We already know that good asthma control improves outcomes during pregnancy and at birth, and we now know that <u>children</u> whose mothers had well-controlled asthma during <u>pregnancy</u> are at lower risk of developing asthma themselves."

More information: Andrea J. Roff et al, Maternal asthma during pregnancy and risks of allergy and asthma in progeny: A systematic review and meta-analysis, *BJOG: An International Journal of Obstetrics* & *Gynaecology* (2024). DOI: 10.1111/1471-0528.17900

Provided by University of Adelaide

Citation: Confirmed link between maternal asthma and child allergies (2024, July 29) retrieved 29 July 2024 from <u>https://medicalxpress.com/news/2024-07-link-maternal-asthma-child-allergies.html</u>

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