

Research reveals risk factors for poor asthma control in children

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A recent University of Alberta study is shedding more light on how perinatal health and early life events are related to asthma control in children. "[Perinatal and early life factors and asthma control among](#)

[preschoolers: a population-based retrospective cohort study](#)" was published in *BMJ Open Respiratory Research*.

"The problem is that if (childhood asthma) is not well controlled, it is a major driver of emergency hospital admissions and is within the top 10 causes of disability-adjusted life years lost among [children](#)," says senior author Maria Ospina, adjunct professor in the Department of Obstetrics & Gynecology in the Faculty of Medicine & Dentistry and associate professor in the Department of Public Health Sciences at Queen's University.

"The cost to the [health](#) care system is also quite big," Ospina adds. "If children do not have good [asthma control](#), they also miss school days. So the earlier we can do things to control asthma, the better."

Asthma is the most common childhood chronic disease, affecting up to 13% of children in Canada, according to Statistics Canada. By age six, between 50% and 60% of those who had preschool asthma no longer have symptoms, but even for them, their childhood asthma can have a lasting impact on their lung function as adults.

The researchers looked at data for more than 7,200 children born in Alberta from 2010 to 2012 who were diagnosed with asthma before age five. They found that antibiotic use, [gestational diabetes](#), smoking in pregnancy, C-section birth, summer birth and severe respiratory infections in early life were all linked with an increased risk of poor control of [asthma](#) symptoms in preschoolers.

"It's all part of a growing body of evidence on how important the time period during pregnancy and [early life](#) is for our development," notes lead author Linn Moore, who conducted the research while she was a postdoctoral fellow at the U of A

"A message to families would be that as we're learning more and more about these types of risk factors, we might be able to avoid or control some of them," says Moore. "Some we cannot control, but it's still important to know if they're there. It's all about prevention and having the awareness of what the risks are."

Ospina adds that it's important not to stigmatize the behavior of mothers. "That's not the purpose of this work. It's not about blaming the mother for individual exposures during pregnancy. That's a key message here.

"That also should invite us to provide women with more support so they're able to make healthy, informed choices during pregnancy, which can have significant implications for [child health](#) later," she says. "By ensuring that mothers have the necessary support and information, we can promote health strategies that may help to control [childhood asthma](#) symptoms more effectively."

More information: Linn E Moore et al, Perinatal and early life factors and asthma control among preschoolers: a population-based retrospective cohort study, *BMJ Open Respiratory Research* (2023). [DOI: 10.1136/bmjresp-2023-001928](https://doi.org/10.1136/bmjresp-2023-001928)

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