

Infection combined with premature birth increases asthma risk, study says

February 2 2010, By Thomas H. Maugh II

An infection of the uterine cavity during pregnancy combined with premature birth doubles the risk that an African American child will develop asthma, researchers have found. The combination also increases risk for some other ethnicities, though less severely.

About 8 percent of pregnancies are marked by such bacterial infections, called chorioamnionitis, but it is not yet clear what proportion of [asthma](#) is induced by them, said the lead author of the study, Dr. Darios Getahun of Kaiser Permanente's Department of Research and Evaluation in Pasadena, Calif. Nor is it clear whether the duration of the infection influences the risk and why different ethnicities respond differently, he said.

But blacks have about a 25 percent higher incidence of asthma and the new findings could account for a significant portion of that increase. Asthma incidence is also higher in American Indian and Alaskan Native populations, but the researchers were not able to examine that association.

About 14 percent of American [children](#) suffer from asthma, an inflammation of the airways that is marked by wheezing, shortness of breath, chest tightening and coughing. About half of such cases are believed to be of genetic origin, but the cause of the rest has been a mystery.

Many studies have looked at the risk of asthma related to Caesarean

sections, exposure to antibiotics and other factors related to delivery, Getahun said. "We were thinking that it was really exposure (in the uterus) that may predispose children to asthma later in life."

Getahun and his colleagues took advantage of the extensive electronic medical records of Kaiser's Southern California Medical Group, studying 397,852 births between 1991 and 2007. They reported Monday in the journal *Archives of Pediatric and Adolescent Medicine* that chorioamnionitis had no apparent effect on the rate of asthma when the fetuses were carried full term.

But when the mother suffered from the infection and gave birth prematurely, the risk of asthma developing before the age of 8 was 98 percent higher in black children, 70 percent higher in Latino children and 66 percent higher in Caucasian children. No increased risk was observed, however, for children of Asian or Pacific Islander descent.

Getahun speculated that the infections -- which can be caused by a broad variety of bacteria -- cause inflammation of the fetal lungs, either injuring the lungs or predisposing them to react more severely to future environmental insults.

The team now is planning to look for markers that would identify chorioamnionitis at an earlier stage and to explore why the infections affect different races differently.

Chorioamnionitis is marked by a fever above 100.4 degrees F. in the absence of any obvious source of infection, and may also be manifested as increased maternal or fetal heart rate, uterine tenderness, foul-smelling amniotic fluid and increased white blood cell counts.

(c) 2010, Los Angeles Times.

Distributed by McClatchy-Tribune Information Services.

Citation: Infection combined with premature birth increases asthma risk, study says (2010, February 2) retrieved 13 May 2024 from <https://medicalxpress.com/news/2010-02-infection-combined-premature-birth-asthma.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.