

Babies born by C-section at risk of developing allergies, research says

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For expectant moms who may contemplate the pros and cons of natural child birth or Caesarian section, a Henry Ford Hospital study suggests that C-section babies are susceptible to developing allergies by age two.

Researchers found that babies born by C-section are five times more likely to develop allergies than babies born naturally when exposed to high levels of common allergens in the home such as those from dogs, cats and [dust mites](#).

The study is being presented Sunday at the American Academy of Allergy, Asthma and Immunology annual meeting in San Antonio.

"This further advances the [hygiene hypothesis](#) that early childhood exposure to microorganisms affects the immune system's development and onset of allergies," says Christine Cole Johnson, Ph.D., MPH, chair of Henry Ford Department of Health Sciences and the study's lead author. "We believe a baby's exposure to bacteria in the [birth canal](#) is a major influencer on their immune system."

Dr. Johnson says C-section babies have a pattern of "at risk" microorganisms in their [gastrointestinal tract](#) that may make them more susceptible to developing the antibody Immunoglobulin E, or IgE, when exposed to allergens. IgE is linked to the development of allergies and asthma.

For its study Henry Ford researchers sought to evaluate the role of early

exposure to allergens and how this exposure affects the association between C-section and the development of IgE.

Researchers enrolled 1,258 newborns from 2003-2007, and evaluated them at four age intervals – one month, six months, one year and two years. Data was collected from the baby's umbilical cord and stool, blood samples from the baby's mother and father, breast milk and household dust, as well as family history of allergy or asthma, pregnancy variables, household pets, [tobacco smoke exposure](#), baby illnesses and medication use.

Provided by Henry Ford Health System

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