

PRESS RELEASE

Vaccination in Childhood and the Risk of Asthma

Papers published

Spycher BD, Silverman M, Egger M, Zwahlen M, Kuehni CE. Routine vaccination against pertussis and the risk of childhood asthma: a population-based cohort study. *Pediatrics* 2009;123:944-950

Spycher BD, Silverman M, Kuehni CE. Timing of routine vaccinations and the risk of childhood asthma. *J All Clin Immunol* 2008;122:656 [Letter]

Background

Does childhood immunisation increase or decrease the risk of childhood asthma? This issue has been researched for many years, with hitherto conflicting results. The reason for our continued uncertainty, is the lack of good quality large-scale research studies. In particular, many previous studies have been inherently biased in their methodology, and hence provided misleading conclusions.

The Leicestershire Children's Cohorts provided the opportunity to investigate the relationship between routine vaccinations in childhood and the risk of subsequent asthma, in a more reliable manner. The large sample size, and the independent prospectively collected data on vaccination and on respiratory health, have allowed us to provide a more conclusive answer to the research question.

What have we found?

Data from over 6,800 children born between 1993 and 1997 in Leicestershire were used to compare the prevalence and incidence of wheezing diseases and asthma between children of different vaccination status. We were able to avoid the common pitfall that vaccination is often delayed on purpose in children who have respiratory symptoms early in childhood. We found no evidence for an increased risk of wheezing or of asthma in children who were vaccinated (against pertussis and other agents) compared with non-vaccinated children. Our research thus does not support claims that vaccination increases the risk of childhood asthma.

Why is this important?

In the past, many health professionals of parents have advised against childhood vaccinations, particularly for children from families at high risk of allergy or asthma, on the grounds that vaccination might increase the risk of subsequent asthma. We can now reassure health professionals and parents that these fears are unfounded and that there is almost certainly no increased risk of asthma brought about by childhood vaccinations.

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