

There was a strong relationship between C-reactive protein levels and total IgE levels.

CONCLUSIONS. Overweight status in children is associated with allergic predisposition, especially to foods. Because childhood obesity continues to be an enormous health care concern facing US children, this increased risk of allergy is yet another motivating factor to combat childhood obesity.

REVIEWERS COMMENTS. The authors of this study attempted to correlate childhood obesity with increased atopy, particularly to foods. However, the definition of atopy relied on an elevated serum-specific IgE level, which may not be clinically relevant, especially for food allergy without clinical history. The study authors recognized that BMI is not the best measure of obesity because of larger bone structure and muscle mass in some children, which further confounds the classification of overweight and obese children. Studies also showed that underweight children had increased risk of atopic disease, but this was not addressed in this study. Any effort to reduce or to prevent childhood obesity is beneficial but, in terms of atopic diseases, maybe we should take the "3 bears" approach: not too skinny, not too fat; normal weight is perfect.

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Association Between Paracetamol Use in Infancy and Childhood, and Risk of Asthma, Rhinoconjunctivitis, and Eczema in Children Aged 6–7 Years: Analysis From Phase Three of the ISAAC Programme

Beasley R, Clayton T, Crane J, et al; ISAAC Phase Three Study Group. *Lancet*. 2008;372(9643):1039–1048

PURPOSE OF THE STUDY. The authors evaluated the associations between exposure to paracetamol (acetaminophen) in infancy and childhood and development of asthma and other atopic conditions in early school-aged children.

STUDY POPULATION. The study included 205 487 children 6 to 7 years of age from 73 centers in 31 countries.

METHODS. Parents or guardians completed written questionnaires regarding the presence of asthma, rhinoconjunctivitis, and eczema symptoms; child and family demographic information; and exposure to environmental risk factors including medications, breastfeeding, diet, home exposures, and traffic pollution. Acetaminophen administration for fever in the child's first year of life and

the frequency of acetaminophen use in the previous 12 months (none; medium, once per year or more; or high, once per month or more) were determined.

RESULTS. Acetaminophen use for fever in the first year of life was associated with symptoms of asthma (odds ratio [OR]: 1.46 [95% confidence interval [CI]: 1.36–1.56]), rhinoconjunctivitis (OR: 1.48 [95% CI: 1.38–1.60]), and eczema (OR: 1.35 [95% CI: 1.26–1.45]) for children 6 to 7 years of age and was associated with severe asthma symptoms and with rhinoconjunctivitis and eczema after exclusion of children with wheeze. The overall population attributable risk of asthma was 21% to 40%. The association between asthma and current acetaminophen use was dose dependent (medium frequency OR: 1.61 [95% CI: 1.46–1.77]; high frequency OR: 3.23 [95% CI: 2.91–3.60]); dose-response relationships were also seen for rhinoconjunctivitis and eczema.

CONCLUSIONS. Acetaminophen use in infancy and childhood was associated with the development of asthma, rhinoconjunctivitis, and eczema in 6- to 7-year-old children, and the associations seemed to be dose-responsive for childhood acetaminophen exposure.

REVIEWER COMMENTS. This large, multinational, retrospective study demonstrated an association between previous and current acetaminophen use and childhood atopic conditions that persisted across populations with different lifestyles, medical access and practices, and types of febrile childhood illnesses. Prospective studies of acetaminophen use during pregnancy and a randomized, controlled trial that compared acetaminophen with another antipyretic medication also suggested associations between acetaminophen and childhood asthma, although an association between decreased aspirin use and asthma development has also been hypothesized. Before these findings can be interpreted as causal, additional prospective observational or randomized studies should be performed and should include information on covariates such as parental atopy and asthma, types of febrile illnesses, and use of other antipyretic agents.

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Allergic Disease and Atopic Sensitization in Children in Relation to Measles Vaccination and Measles Infection

Rosenlund H, Bergström A, Alm JS, et al; PARSIFAL Study Group. *Pediatrics*. 2009;123(3):771–778

PURPOSE OF THE STUDY. To determine the role of measles vaccination and infection in the outcome of allergic disease and atopic sensitization.

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