

of allergic sensitization and, therefore, an increased risk of developing future asthma.

REVIEWER COMMENTS. A limitation of this study lies in the fact that all subjects were hospitalized for their wheezing, thereby representing a minority of children with rhinovirus infection. Nevertheless, when considering the asthma predictive index, the evidence presented from this study suggests that a history of rhinovirus infection, especially severe infection, could be considered an additional risk factor for the development of asthma.

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Association of Childhood Obesity With Atopic and Nonatopic Asthma: Results From the National Health and Nutrition Examination Survey 1999–2006

Visness CM, London SJ, Daniels JL, et al. *J Asthma*. 2010;47(7):822–829

PURPOSE OF THE STUDY. Previous work has suggested that obesity is related to asthma through an allergic inflammation pathway. These researchers sought to examine the role of C-reactive protein (CRP) in the association between obesity and asthma among a nationally representative sample of US children and young adults.

STUDY POPULATION. The sample came from the 1999–2006 National Health and Nutrition Examination Survey (NHANES) and specifically included children aged 2 to 19 who had information on BMI and asthma status ($N = 16\,074$).

METHODS. Atopy was measured by using allergen-specific serum immunoglobulin E; asthma status was measured through self-report of diagnosis by a physician; and BMI was calculated on the basis of height and weight measurements. Multiple logistic regression analysis was used to examine the association between BMI and asthma status.

RESULTS. Nearly 10% of the children reported current asthma. A higher proportion of atopic compared with nonatopic children reported current asthma (15.8% vs 6.4%; odds ratio [OR]: 2.71 [95% confidence interval (CI): 1.98–3.72]). There was a strong relationship between BMI and CRP levels ($r = 0.41$). Obese children had a 1.68 odds (95% CI: 1.33–2.12) of having current asthma. Among nonatopic children, those in the obese category were more than twice as likely to have current asthma (OR: 2.46 [95% CI: 1.21–5.02]); however, there was no association between overweight or obesity and asthma among atopic children. Increased CRP levels were asso-

ciated with an increased odds of having asthma among nonatopic children (OR: 1.45 [95% CI: 1.16–1.81]) but not among atopic children (OR: 0.97 [95% CI: 0.65–1.44]).

CONCLUSIONS. The association of overweight and obesity with asthma was stronger among nonatopic children. Overweight might lead to systematic inflammation that, in turn, leads to an increased risk of asthma in nonatopic people.

REVIEWER COMMENTS. There is growing evidence that the rise in both obesity and asthma might be related. This study was cross-sectional and limits our understanding of the causal relationship between obesity and asthma. However, it contributes to advancing the evidence in this area by examining the mechanisms through which obesity and asthma might be related—in this case, through nonallergic disease. Future studies can build on these findings by examining these associations prospectively.

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Risk of Asthma in Young Adults Who Were Born Preterm: A Swedish National Cohort Study

Crump C, Winkleby, Sundquist J, Sundquist K. *Pediatrics*. 2011;127(4). Available at: www.pediatrics.org/cgi/content/full/127/4/e913

PURPOSE OF THE STUDY. To evaluate whether those who were born prematurely were more likely to be prescribed asthma medications in young adulthood than those who were born at term.

STUDY POPULATION. This was a national cohort study of all singleton infants born in Sweden from 1973 through 1979 ($N = 622\,616$) and followed to ages 25.5 to 35.0 to determine whether asthma medications were prescribed in 2005–2007.

METHODS. Asthma-medication data were obtained from all outpatient and inpatient pharmacies throughout Sweden. Outcome was defined as prescription of (1) both a β_2 agonist inhalant and a glucocorticoid inhalant or (2) a combination inhalant containing a β_2 agonist and other drugs for obstructive airway diseases.

RESULTS. Young adults who were born extremely prematurely (23–27 weeks' gestation) were 2.4 times more likely to be prescribed asthma medications than those who were born at term (95% confidence interval: 1.41–4.06). No association was found between later prematurity (28–32 or 33–36 weeks' gestation) and asthma medications in young adulthood.

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Minal R. Patel and Harvey L. Leo

Pediatrics 2011;128;S122

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