

Table S2. The characteristics of included study (case-control study)

Study	Study Design	Definition of Outcomes	Measurement of Folate/Folic Acid Status	Main Findings	Study Limitations	Adjusted Factors	Quality Assessment Score
Haberg 2011 ¹⁷	Case-control study of 1,962 children (case/control: 507/1455) in Norway, carried out in 2002-2004, embedded in the MoBa study, and followed up to age 3 yr	Asthma: mother report and had used inhalant medication	Maternal blood plasma folate level	Maternal plasma folate in the second trimester of pregnancy was linearly associated with increased risk of asthma at age 3 yr	Lack of data on dietary intake, and nonassessment of folate status in early pregnancy	Maternal educational level, maternal age, parity, maternal atopy, maternal body mass index, maternal smoking in pregnancy, maternal smoking at age 3 yr, and supplement use at age 3 yr	7
Farres 2011 ¹⁸	Case-control study of 180 adults (case/control: 120/60) in Egypt, carried out in 2009-2010	Asthma: doctor-diagnosed, GINA 2007 Atopic: at least one positive SPT	Serum folate level	No significant association between serum folate levels and asthma or FEV1. Among atopic asthmatics, serum folate levels were inversely associated with total IgE levels, and the number of positive SPTs.	Small sample size, nonassessment of dietary intake, and limited adjustment for potential confounding factors	Age and sex	6
Bueso 2011 ¹⁹	Case-control study of 169 children (case/control: 93/76) aged 13-14 yr in Norway, carried out in 2005-2006, embedded in the ECA study	Asthma: doctor-diagnosed and/or symptoms and/or medication use, at least fulfilled two of the three criteria	folate consumption from foods and folic acid supplement	No significant association between dietary intake of folate and asthma	Small sample size, and limited adjustment for potential confounding factors	Age and sex	8
Shaheen 2011 ²⁰	Case-control study of 40 children (case/control: 20/20) in India, carried out in 2009-2010	AD: physician diagnosed	Serum folic acid level	No significant association between serum folic acid level and AD	Small sample size, lack of data on dietary intake, and lack of adjustment for potential confounding factors	NA	6
Oh 2010 ²¹	Case-control study of 422 children (case/control: 180/242) in Korea, carried out in 2006-2007	AD: ISAAC	folate consumption from foods and folic acid supplement	Intake of folic acid was inversely associated with AD risk	Lack of data on folate levels, and potential selection bias	Monthly household income, parental histories of allergic diseases, and the child's age, gender, body mass index, supplement intake (ye s/no), and total energy intake	8
Patel 2006 ²²	Case-control study of 1030 adults (case/control: 515/515) in UK, carried out from 1993-1998, embedded in the EPIC-Norfolk study	Asthma: physician diagnosed	folate consumption from foods	Increased intake of folate was associated with reduced risk of asthma	Nonassessment of folate supplementation	Pack years smoked, social class, BMI, increasing level of physical activity and level of education	8
Zhou 2003 ²³	Case-control study of 1,682 adults (case/control: 433/1,249) in Japan, carried out in 2001-2002	Asthma: NA	MTHFR C677T polymorphism	The TT genotype of MTHFR C677T was significant associated with increased risk of atopic asthma	Lack of data on folate levels, lack of clear asthma definition, and lack of adjustment for potential confounding factors	NA	4

MoBa, Norwegian Mother and Child Cohort Study; GINA, Global Initiative for Asthma; SPT, Skin Prick Test; AD, Atopic dermatitis; EPIC-Norfolk, Norfolk arm of the European Prospective Investigation of Cancer; MTHFR, methylene-tetrahydrofolate reductase.