

Main outcome measures: Blood pressure (BP), random plasma glucose and anthropometrics, as well as prevalence of hypertension (BP >140/90 mmHg), impaired glucose tolerance (IGT; p-glucose 7.8-11.0 mmol/l), diabetes (DM; p-glucose \geq 11.1 mmol/l), or overweight (BMI >25 kg/m²).

Results: Fetal-infant exposure to famine was associated with elevated systolic (+7 mmHg; $p < 0.001$) and diastolic (+5 mmHg; $p < 0.001$) BP, increased p-glucose (+0.3 mmol/L; $p < 0.04$) and waist circumference (+ 3cm, $p < 0.001$), increased risk of systolic hypertension (adjusted OR 2.87; 95% CI 1.90-4.34), IGT (OR 1.65; 95% CI 1.02-2.69) and overweight (OR 1.41; 95% CI 1.03-1.93) as compared to people born after the famine. The effect of fetal-infant famine on BP was seen in both women and men, whereas the effect on IGT was seen in men only, and the increased risk of overweight was confined to women.

Conclusions: Fetal and infant undernutrition is associated with significantly increased risk of hypertension and impaired glucose tolerance in 40-year-old Nigerians. Prevention of undernutrition during pregnancy and in infancy should therefore be given high priority in health, education, and economic agendas.

13

DOES FOLIC ACID INTAKE IN PREGNANCY INCREASE RISK OF WHEEZE AT 18 MONTHS? EVIDENCE FROM THE DANISH NATIONAL BIRTH COHORT.

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Background: Recent evidence suggests that maternal supplementation of folic acid during pregnancy may play a role in the development of wheezing and asthma among offspring, potentially through epigenetic mechanisms.

Objective: We examined associations of maternal prenatal intake of folic acid supplements and dietary folate with wheeze and recurrent wheeze among

offspring at age 18 months in the Danish National Birth Cohort.

Methods: We estimated maternal intake of folic acid via supplements and dietary folate (n=54,440) using a validated FFQ completed in mid-pregnancy. We defined wheeze as a positive maternal report of child wheezing on either the 6 or 18 month interview, and recurrent wheeze as ≥ 3 wheeze episodes with the first occurring before 15 months of life. We conducted logistic regression analyses controlling for potential confounders, and report here estimates for the highest vs. lowest quartiles.

Results: Of the 54,440 children, 14.2% (n=7,703) had wheezed and 3.0% (n=1,619) had recurrent wheezing by 18 months. Maternal intake of folic acid supplements was not associated with child wheezing (OR: 1.06, 95% CI: 0.93, 1.21) or recurrent wheezing. (OR: 1.13, 95% CI: 0.88, 1.46) Similarly, dietary folate was not associated with wheezing (OR: 0.95, 95% CI: 0.87, 1.04) or with recurrent wheeze (OR: 0.90; 95% CI: 0.74, 1.08).

Conclusions: We found no association of maternal mid-pregnancy intake of folic acid supplements or dietary folate with wheezing in early childhood. Maternal folic acid status at conception may be more important in influencing child epigenetic imprinting and subsequent outcomes.

14

METHIONINE REQUIREMENT IN PRESENCE OF CYSTEINE IN THE ENTERALLY FED TERM NEONATE

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Background: Experimental evidence of essential amino acid requirement in neonates is scanty. Recently, the branched chain amino acid requirements in term neonates were successfully determined using the indicator amino acid oxidation method. Methionine, an essential amino acid, can be used for protein synthesis, but serves as a precursor for homocysteine and cysteine as well. Current recommended total sulphur amino acid requirement for infants 0-1 months is 57 mg/kg/d (methionine