



FOLIC ACID SUPPLEMENTATION BEFORE CONCEPTION MAY BOOST BIRTH WEIGHT

A paper published ahead of print in the *British Journal of Nutrition*¹ found that folic acid supplementation can increase babies' birth weights by over 60 grams, which is beneficial for infant health. Mums who started folic acid supplementation before conception were nearly 60 per cent less likely to have an abnormally small baby.

Commenting on the research, Dr Carrie Ruxton, advisor to the Health Supplements Information Service, notes: "This is an important finding for two reasons. Firstly, being born with a low birth weight pushes up a child's risk of developing heart disease or diabetes later in life. Optimal foetal growth depends on having the right balance of nutrients, and folic acid plays a vital role in the normal production of protein, lipids and DNA. Secondly, these results add weight to the current recommendation that women should begin taking a daily supplement of 400 micrograms of folic acid before conception.

"In this new study, researchers analysed data for 6,353 pregnancies and evaluated the effect of folic acid supplementation (400-500 micrograms per day taken before or during pregnancy) on the birth weight of the infants. After adjustment for other diet and lifestyle factors, birth weight was 68 g higher in the offspring of women who started folic acid supplementation before conception compared with women who didn't take the supplement at all. Birth weight was also 53 g higher in the offspring of women who started supplementation **after** finding out they were pregnant..

"Overall, starting folic acid supplementation before conception reduced the risk of low birth weight by more than half, and the risk of 'small for date' babies by more than 60% per cent. It was even worthwhile for women who were already pregnant starting folic acid supplementation because this was associated with a 40 per cent lower risk of having a child with low birth weight."

¹ Timmermans S et al. Periconception folic acid supplementation, fetal growth and the risks of low birth weight and preterm birth: the Generation R Study. *British Journal of Nutrition* April 2009. doi:10.1017/S0007114509288994

Dr Ruxton adds: “Compared with first time mums, the benefits of folic acid supplementation were even more striking in women who had had a child before. In this group, starting folic acid supplementation before conception was linked with a 240g higher birth weight compared with first time mothers who didn’t take folic acid.

“Folic acid is an essential nutrient, and supplementation before and during pregnancy is recommended in many countries primarily to cut the rate of neural tube defects (e.g. spina bifida) in babies. In the UK, the Department of Health recommends that women take a 400 microgram folic acid supplement daily from the time of conception to the 12th week of pregnancy. This is on top of the 200 micrograms of folate that should be obtained from a healthy diet. However, more than 90 per cent of women of childbearing age fail to meet this recommendation, thus putting their infants at risk.²³”

Low birth weight is defined by the World Health Organisation as less than 2.5kg (5lb 8oz). The number of low birth weight babies born in Britain has increased in recent years. A study by the Fabian Society found that 78 out of every 1,000 babies born in 2006 weighed less than 2.5kg – i.e. more than 50,000 babies across the UK. This compares with 1989 when 67 out of every 1,000 babies born had a low birth weight. Low birth weight puts babies and children at risk of death and disability and increases the likelihood of developing chronic health problems later on, such as diabetes, heart disease, Attention Deficit Hyperactivity Disorder (ADHD) and depression.

For further information or to arrange an interview with an HSIS spokesperson, please contact:

² Mason P. The potential role of supplements in government work programmes. Proprietary Association of Great Britain (PAGB): 2008.

³ Henderson L et al. The National Diet and Nutrition Survey: adults aged 19 to 64 years. Volume