

Two-thirds of women not taking folic acid before pregnancy to prevent spina bifida

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Research published today from Queen Mary University of London reveals less than 1 in 3 women have taken folic acid supplements before pregnancy to prevent spina bifida and other birth defects of the brain, spine, or spinal cord (neural tube defects). This is despite research from 1991 showing that such conditions could be prevented in most cases by increasing the intake of the B-vitamin folic acid before pregnancy.

The study, carried out by Queen Mary's Wolfson Institute of Preventive Medicine and published in the journal *PLOS ONE*, questioned nearly half a million [women](#) attending antenatal screening between 1999 and 2012 in England and the Isle of Man. The proportion of women taking [folic acid supplements](#) decreased from 35% in 1999-2001 to 31% in 2011-2012.

The study also showed strong ethnic variations with only 17% of Afro-Caribbean women, 20% of South Asian women and 25% of East Asian women taking folic acid supplements, compared with 35% of Caucasian women. In addition, only 6% of women under 20 were taking folic acid supplements compared with 40% of women aged 35 to 39.

Women who had previously had a pregnancy involving [neural tube defects](#) were more likely to take folic acid supplements before pregnancy than women who had not, but still only half of them did (51%) in spite of their high risk of a recurrence.

Additionally, the proportion of women who started taking folic acid

supplements after finding out they were pregnant increased from 45% to 62%. However, for the preventive benefits to be effective, folic acid supplements need to be taken before pregnancy.

"Each year in Britain there are about 1,000 pregnancies affected by [spina bifida](#) or other [birth defects](#) of the brain, spine, or [spinal cord](#). Most of these lead to a termination of pregnancy which is an agonising decision for couples who want a child." said Joan Morris, co-author and Professor of Medical Statistics at Queen Mary.

Over 70 countries, including the US and Australia, have introduced mandatory folic acid fortification to reduce the risk of women having a pregnancy affected with neural tube defects. Despite recommendations from the Food Standards Agency to fortify flour with folic acid, and evidence that folic acid fortification is effective, neither the UK nor any other EU country has mandated this.

"The current UK policy of recommending women take folic acid supplements has failed and has also led to health inequalities among ethnic minorities and younger women. The Government should introduce mandatory fortification of flour with folic acid without delay." said Jonathan Bestwick, lead author and Lecturer in Medical Statistics at Queen Mary.

Professor Sir Nicholas Wald, a co-author from Queen Mary, who conducted the original research showing the protective effect of folic acid said: "It's a public health tragedy that in spite of the folic acid fortification initiative in many countries, the UK has not introduced mandatory folic [acid fortification](#). The failure to fortify flour with folic acid is like having a polio vaccine and not using it."

More information: [dx.plos.org/10.1371/journal.pone.0089354](https://doi.org/10.1371/journal.pone.0089354)

Provided by Queen Mary, University of London

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