

European folic acid policy is failing to prevent many neural tube defects, warn experts

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The prevalence of neural tube defects in Europe has not declined substantially in the past 20 years, despite long-standing recommendations for women to take folic acid supplements if planning a pregnancy, finds a study in *The BMJ* today.

Europe has failed to implement an effective policy for prevention of [neural tube](#) defects by folic acid, argue the researchers.

Each year, around 5,000 pregnancies in Europe are affected by neural tube defects like spina bifida and anencephaly (problems with brain and skull formation), with serious consequences for newborns and their families. Taking [folic acid supplements](#) before and during [early pregnancy](#) can greatly reduce the risk, but evidence suggests that only a [small minority](#) of women do so - and mandatory fortification programmes do not yet exist in Europe.

So a team of researchers set out to assess the long term trends in neural tube defects in Europe.

They analysed data for more than 11,000 cases of non-chromosomal neural tube defects from 28 EUROCAT (European Surveillance of Congenital Anomalies) registries covering approximately 12.5 million births in 19 countries between 1991 and 2011.

Mathematical models were also used to account for differences across registries and to calculate non-linear time trends.

They found that the overall (pooled) total prevalence of neural tube defects in 2011 was fairly similar to that in 1991 (9 per 10,000 births). This was also true for the two main types of anomaly, anencephaly and spina bifida.

Estimates from models that took into account differences across registries showed an annual increase of 4% in 1995-99 and a decrease of 3% per year in 1999-2003, with stable rates thereafter.

The trend patterns for [spina bifida](#) and anencephaly were similar, but neither anomaly decreased substantially over time.

The authors stress that this is an observational study so no definitive conclusions can be drawn about cause and effect, and say they cannot exclude the possibility that registration problems or other data factors may have influenced the findings.

However, they say their data suggest that "recommendations, voluntary fortification, or both have not been effective in decreasing the prevalence of neural tube defects in Europe."

They add that policies for mandatory fortification of food staples with folic acid "should be considered as an important and more effective means for prevention of [neural tube defects](#), while weighing the evidence for its proven benefits and possible risks."

Voluntary guidance for women isn't working and Europe should seriously consider mandatory fortification, argue researchers at the US National Institutes of Health, in an accompanying editorial.

They point out that mandatory fortification has been shown to work in many countries, including the United States, and no important adverse effects have been identified to date.

Today's findings "should prompt the relevant authorities in the EU to take a further look at the compulsory fortification option," they conclude.

More information: Long term trends in prevalence of neural tube defects in Europe: population based study, *The BMJ*, www.bmj.com/cgi/doi/10.1136/bmj.h5949

Editorial: Folic acid fortification for Europe? *The BMJ*, www.bmj.com/cgi/doi/10.1136/bmj.h6198

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