

Folic Acid

Mandatory fortification of flour to prevent foetal anomaly in pregnancy

The British Pregnancy Advisory Service (BPAS) is a reproductive healthcare charity that offers abortion care, contraception, STI testing, miscarriage management, and pregnancy counselling to nearly 80,000 women each year via our clinics in England, Wales, and Scotland. We also advocate on behalf of our clients for changes in policy to allow women to make free and informed choices about their pregnancies.

The problem

The UK has **one of the highest rates of neural tube defects in Europe**, with around 1,000 pregnancies affected each year. These defects, including anencephaly and spina bifida, often leave women with no choice but to terminate a wanted pregnancy.

One of the most effective ways to reduce the incidence of these conditions is for women to **take folic acid before they conceive**, yet a [comprehensive 2013 study](#) showed that fewer than one in three women in the UK take folic acid prior to conceiving, a figure which has fallen since 2001.

The same study indicated that only **6% of women who became pregnant under the age of 20 took folic acid supplements before pregnancy** – compared to 40% of women aged over 35.

Only 55% of pregnancies in Great Britain are planned, which means that even if women are aware of guidance around folic acid, they are unlikely to be able to take the appropriate amount of folic acid before the point in pregnancy when the spinal cord, brain, and central nervous system finish developing c. 23 days postconception (c.5 weeks' gestation).

Current guidance and focus on independent supplementation with folic acid for women of childbearing age is **ineffective in preventing neural tube defects in wanted pregnancies**.

Neural Tube Defects (NTDs)

Neural Tube Defects are abnormalities that can occur in the brain, spine, or spinal column of an embryo during gestation. They vary in severity, and although effects of some NTDs can be ameliorated, they are incurable.

The most common NTD is Spina Bifida. Spina Bifida is caused by a fault in the development of the spinal cord and vertebrae leaves a gap or split in the spine. Depending on the location of the split, the effects of spina bifida can include problems walking or using arms and fingers, paralysis, or issues with bowel and bladder control.

Other forms of NTD include **anencephaly, where the brain does not develop and may be entirely absent** – resulting in stillbirth or death shortly after birth.

The charity [Shine](#) provides support for those living with spina bifida and other defects, and provides support to parents, families, and carers.

The solution

To reduce the prevalence of Neural Tube Defects, the British Pregnancy Advisory Service, alongside a number of other professional and charitable organisations, **calls for the UK government to mandate the fortification of flour with folic acid.**

Mandatory fortification would mean that women who become pregnant, regardless of age or whether or not their pregnancy is planned, would **dramatically reduce their chances of receiving a foetal anomaly diagnosis because of Neural Tube Defects.**

This, in turn, would **allow women to make their own decisions about their pregnancy – wanted or not** – rather than having their decision influenced by a preventable foetal anomaly diagnosis.

Flour in the UK is already fortified for public health purposes with calcium, iron, thiamine (vitamin B1), and niacin (vitamin B3). Fortification began in 1941 when calcium was introduced to reduce the prevalence of rickets.

Scientific and medical guidance

UK and international scientific and medical guidance supports the introduction of mandatory fortification of flour with folic acid.

The **Independent Scientific Advisory Committee on Nutrition (SACN)** and the Food Standards Agency (which advises Public Health England and the UK government on nutrition and health-related matters) has **recommended the mandatory fortification of flour with folic acid to prevent serious abnormality in pregnancy since 2006.**

SACN reiterated this guidance in 2009.

Mandatory fortification is supported by the **Royal College of Obstetricians and Gynaecologists (RCOG), the Royal College of Midwives (RCM), and the Royal College of Paediatrics and Child Health (RCPCH).**

Fortification elsewhere

Government analysis of the impact of mandatory fortification in other countries recognises the positive impact on the reduction of Neural Tube Defects.

In the USA, mandatory fortification was introduced in 1998 and there was an **'immediate and stable' 28% reduction in prevalence of NTDs.**

Internationally, a systematic review and meta-analysis of 300 studies reported that **the prevalence of spina bifida was lower in regions with mandatory rather than voluntary fortification** (35 per 100,000 live births, stillbirths, and terminations of pregnancy compared to 52 per 100,000).

In 2016, after a lack of movement from the UK government, food standards bodies and ministers in **Scotland, Wales, and Northern Ireland began to look into the possibility of introducing mandatory fortification in their nations.**

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