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Folic acid fortification: will the new UK government pass the "acid test"?

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Between now and the 4 July UK general election, there will be repeated calls for change. The focus will be on today's "big" issues. These will not be quick or easy to achieve. There is, however, a relatively small change that can be implemented easily and would be of unquestionable public benefit. It would be safe and largely prevent one of the most common devastating birth defects.

The change would save lives and money. It would position the UK as a global public health leader. Although not a headline issue, it is a change that would have a profound positive health impact on the lives and livelihoods of people regardless of socio-economic status. It would also advance equality and social justice.

I am referring to fully effective fortification of all flour and rice with the vitamin folic acid (vitamin B9) to prevent spina bifida and other neural tube defects (NTDs).[1-4] The neural tube is the embryological structure that develops into the brain and spinal cord. Most people are not aware that by the end of the fourth week of pregnancy, the neural tube is fully formed, or malformed. At this stage most women do not even know they are pregnant.

NTDs are a major cause of late therapeutic terminations of an affected pregnancy, miscarriage, stillbirth or neonatal death as well as harm to the mother. Many children born alive with an NTD endure lifelong disability from spina bifida and the associated hydrocephalus placing a considerable burden of care on parents and the wider community. The human and financial costs of failing to prevent NTDs are immense, but largely ignored.

Around 80% of NTDs would be prevented by the simple measure of ensuring that women of child-bearing potential achieve the necessary intake of the vitamin folic acid before pregnancy. This cannot happen from a healthy diet alone. More than a decade of recommending that women take folic acid vitamin supplements failed because most women either do not take them at all or take them too late.

Starting to take folic acid supplements when a pregnancy is confirmed is too late to prevent an NTD. The window of opportunity has already closed. Failure to prevent NTD's is a major public health problem that requires the right public health action: fully effective fortification.

Largely due to the energy and perseverance of Jeff Rooker, former chair of UK Food Standards Agency, the UK government has, at long last, accepted folic acid fortification as a necessity. This is welcome, but surprisingly the current UK government has proposed fortifying only one type of flour (non-wholemeal wheat flour) and doing so at an inadequate level. It is only a partial solution to the problem. The proposed regulations and legislation could be much improved. Sticking with the current proposal will prevent only about 20% of NTDs, much less than the 80% that could be prevented with fully effective fortification. There is simply no scientific basis to justify this partial remedy.

The recent article in the *International Journal of Birth and Parent Education*, co-authored by 10 distinguished colleagues (including the former chief medical officer of Scotland, Harry Burns), pointedly drew attention to the inadequate fortification level. It used a compelling analogy: "*Imagine you have a wound requiring five stitches to prevent infection or further harm. And yet, you are informed that only one stitch will be administered. While admitting that it will close only 20% of the wound, you are told to be content with one stitch because it is 'better than nothing' and 'a good start'*".[1]

The current UK government's "one stitch" folic acid fortification proposal is not the change voters would want or expect if they knew the full facts. Making fully effective fortification a health priority, no matter which party wins the election, should be a promise that the new government makes. Importantly, it must be a promise kept and delivered without delay. It would improve the outcomes for mothers, fathers, and babies at no cost to the individuals who would benefit. It would also save money for families and the NHS. What the government has done is a useful step in the right direction, but it is not enough. It will result in more deaths and birth defects every year that could have been prevented. The new government could do substantially better by adopting fully effective fortification with folic acid. Political parties and politicians need to rise to the challenge and pass this "acid test."

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1 Burns H, Cable C, de Caestecker L, etal. Decision time for folic acid fortification: Intentionally inadequate vs fully effective. *Int J Birth Parent Educ* 2024;11:-9.
2 Morris JK, Wald NJ. Fully Effective Folic Acid Fortification. *JAMA* 2023;330:-8. doi: 10.1001/jama.2023.12376 pmid: 37526731
3 Wald NJ. Folic acid and neural tube defects: Discovery, debate and the need for policy change. J Med Screen. 2022 29. 3, p.138-146.
4 Wald NJ. Postscript to 'Folic acid and neural tube defects: Discovery, debate and the need for policy change'. J Med Screen. 2022 Sep;29(3):147. doi: 10.1177/09691413221117464. Epub 2022 Aug 8. Erratum for: J Med Screen. 2022 Sep;29(3):138-146. doi: 10.1177/09691413221102321. PMID: 35942520; PMCID: PMC9530512.