



Office of the Prime Minister's Chief Science Advisor
Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia

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INFORMATION SHEET: Hot topic – Folic Acid

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Notes: ‘Hot topic’ documents provide an overview of the topic, with links to reputable sources for further information. They are periodically updated. The most recent update is archived here.				



Folic acid

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Folate is a B vitamin found naturally in foods including leafy vegetables, legumes, citrus, and wholemeal bread. It is important for human health, playing a key role in the healthy development of babies in early pregnancy by reducing the occurrence of neural tube defects. Folic acid is the synthetic form of folate. It is used in supplements and can be added to food to boost intake.

Neural tube defects are major birth defects affecting the brain, spine, or their protective covering. Possible outcomes for babies with neural tube defects include paralysis and death. An estimated 10.6 newborns per 10,000 suffered neural tube defects between 2011 and 2015 in Aotearoa New Zealand, and neural tube defects are more common amongst Māori and Pacific peoples than other ethnic groups.

Folic acid supplements

Given the health, social, emotional, and economic costs associated with neural tube defects, the [Ministry of Health recommends](#)¹ women take folic acid supplements at least four weeks before conception and for 12 weeks after conceiving. Folic acid supplements are subsidised with a prescription or available without a prescription from pharmacies.

Because folic acid needs to be taken early in a pregnancy to provide maximal protection against neural tube defects, supplementation can’t readily be used to protect developing babies in unplanned pregnancies. Therefore, some countries require manufacturers of commonly consumed foods to add folic acid to their products so that overall folic acid consumption is increased.

Folic acid in bread

In 2018, the Office of the Prime Minister’s Chief Science Advisor, under Sir Peter Gluckman, worked with the Royal Society Te Apārangi to investigate the [health benefits and potential risks of adding folic acid to food](#).² The expert panel agreed that the benefits of adding folic acid to bread (‘fortification’) would outweigh any possible adverse effects.

The Ministry for Primary Industries ran a [public consultation on folic acid fortification](#) in 2019,³ and in 2021 the government made it [mandatory for industry to fortify non-organic wheat flour](#) used in bread making.⁴ The industry has until mid-2023 to make the necessary changes. The Ministry for Primary Industries estimates this will prevent 162 to 240 neural tube defects over a 30-year period compared to the status quo.

This change will bring Aotearoa New Zealand into closer alignment with Australia, where mandatory folic acid fortification of non-organic wheat flour contributed to a [drop in neural tube defects](#),⁵ particularly among Indigenous people (74% reduction) and teen mothers (55% reduction), highlighting the equity-enhancing impacts of folic acid supplementation.

Endnotes

¹ Ministry of Health website – Folate/folic acid, accessed on 23 February 2022

<https://www.health.govt.nz/our-work/preventative-health-wellness/nutrition/folate-folic-acid>

² OPMCSA report – The health benefits and risks of folic acid fortification of food (2018), accessed on 23 February 2022

<https://www.royalsociety.org.nz/what-we-do/our-expert-advice/all-expert-advice-papers/folate-fortification-to-prevent/>

³ Ministry for Primary Industries webpage – Review of folic acid fortification of food, accessed on 23 February 2022

<https://www.mpi.govt.nz/consultations/review-of-folic-acid-fortification-of-food/>

⁴ Beehive press release – Folic acid fortification to protect tamariki (2021), accessed on 23 February 2022

<https://www.beehive.govt.nz/release/folic-acid-fortification-protect-tamariki>

⁵ Australian Institute of Health and Welfare report – Monitoring the health impacts of mandatory folic acid and iodine fortification (2016), accessed on 23 February 2022

<https://www.aihw.gov.au/getmedia/6bfafa4a-2255-4f04-8955-7496c9e5b2c1/19192.pdf.aspx?inline=true>