



Supporting Healthier Communities through Fortified Corn Masa

How folic acid can prevent birth defects of the brain and spine

Background

In the early 1990s, researchers found that folic acid, a form of vitamin B9, can prevent birth defects of the brain and spine known as neural tube defects (NTDs).¹ Since 1998, the FDA has required the fortification of all enriched cereal grain products with folic acid, preventing 1,300 NTDs in the US each year.²

Hispanic women, who may consume corn masa products as a staple food instead of fortified wheat flour products, experience higher rates of NTDs than other subpopulations. In 2016, the FDA approved voluntary fortification of corn masa flour.³ To date, adoption of voluntary fortification is still limited and has not yet reduced this health disparity.⁴

Bridging Nutrition & Prevention



What are NTDs?

NTDs are severe birth defects of the brain and spine, such as spina bifida and anencephaly. NTDs can result in severe disability, miscarriage, or infant death.



What is folic acid?

Folic acid is a man-made form of vitamin B9 that is needed by all humans for cell growth and neural development. Folic acid is currently included in all enriched cereal grains such as fortified wheat flour.



How can folic acid help prevent NTDs?

Getting 400 mcg of folic acid before and during early pregnancy can prevent up to 70% of neural tube defects.¹ Eating foods fortified with folic acid is a proven way to ensure people get their daily vitamin needs.



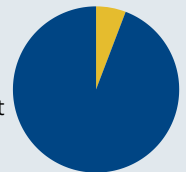
Who is most affected?

Hispanic/Latina women are 19% more likely to have a child born with an NTD than non-Hispanic White and Black women.⁵

Fortified Corn Masa: A staple for prevention

Fortification landscape

- Only **~5.8% of corn masa is currently being fortified**.⁶
- Unfortunately, this is not enough to have a public health impact.



Cost-benefit considerations

- The lifetime cost of spina bifida is about \$792,000. Fortification of wheat flour saves the U.S. more than \$603 million annually.⁷
- Folic acid fortification of corn masa costs less than \$1 per metric ton.

Potential health benefits

- Folic acid-fortified corn masa products could:
 - Help an estimated 422,000 Hispanic women get enough folic acid.⁸
 - Prevent an estimated 127 NTDs annually.⁴

What you can do

- Add folic acid to corn masa products to help prevent NTDs and support public health.
- Educate consumers about the benefits of folic acid fortified foods. Highlight how consuming these products can contribute to their daily vitamin needs.
- To learn more about fortification guidelines, check out [FDA's website](https://www.fda.gov/food/fortification-guidelines).

References:

(1) Prevention of neural tube defects: results of the Medical Research Council Vitamin Study, (1991). (2) Williams et al., (2015). (3) Food and Drug Administration, [Food Additives Permitted for Direct Addition to Food for Human Consumption: Folic Acid](#), (2016). (4) Wang et al., (2024). (5) Stallings et al., (2024). (6) Food Fortification Initiative, [Corn Masa in the US: Supply Chain, Market, and Fortification](#), (2024). (7) Grosse et al., (2016). (8) Hamner et al., (2014).

More info:



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