

# Pregnant women are missing vital nutrients, a situation that could worsen with plant-based foods

December 5 2023

---



Pregnant women missing key nutrients by eating modern diets. Credit: University of Southampton

Pregnant women are not getting the essential nutrients they and their babies need from modern diets say scientists, who have warned that the situation will likely worsen as more people turn to plant-based foods.

A study looking at the health of expecting mothers from [high-income countries](#), including the UK, New Zealand and Singapore, found that 90% were lacking key vitamins necessary for healthy pregnancies and the well-being of unborn infants.

Scientists from the University of Southampton, working with experts worldwide, surveyed more than 1,700 women and found most were missing [essential nutrients](#) found in abundance in meat and [dairy products](#).

These included vitamins B12, B6 and D, folic acid and riboflavin which are essential for the development of fetuses in the womb.

Lead author and Professor of Epidemiology Keith Godfrey, from the University of Southampton, said the prevalence of vitamin deficiencies among women attempting to become pregnant in wealthy countries is a serious concern.

He added, "The push to reduce our dependence on meat and dairy to achieve net-zero carbon emissions is likely to further deplete expecting mothers of vital nutrients, which could have lasting effects on unborn children.

"Our study shows that almost every woman trying to conceive had insufficient levels of one or more vitamin, and this figure is only going to get worse as the world moves towards plant-based diets.

"People think that nutrient deficiency only affects people in underdeveloped countries—but it is also affecting the majority of women living in high-income nations."

The study, which was published in *PLOS Medicine*, assessed 1,729 women between the ages of 18 and 38 at conception and followed many

during subsequent pregnancies.

It was undertaken by researchers from Southampton and its National Institute for Health and Care Research (NIHR) Biomedical Research Center, the University of Auckland, National University of Singapore, and Agency for Science, Research and Technology, Singapore.

Results showed that nine out of ten women had marginal or low levels of folate, riboflavin, vitamins B12 and D around the time of conception, and that many developed vitamin B6 deficiency in late pregnancy.

Co-author Professor of Pediatric Endocrinology Wayne Cutfield, from the University of Auckland, said while [folic acid](#) is recommended for women planning conception and during pregnancy, expecting mothers should be given over-the-counter multivitamins to reduce nutrient deficiencies.

He added, "The well-being of a mother ahead of conceiving and during a pregnancy has a direct influence on the health of the infant, their lifelong physical development, and ability to learn."

The *PLOS Medicine* trial was the first to show that supplements, available over the counter, can reduce vitamin insufficiencies during the preconception, [pregnancy](#) and lactational periods.

Associate Professor Shiao-Yng Chan at the National University of Singapore said, "If we continue to move towards diets with less meat and dairy products, reducing intakes of micronutrients essential for a child's development, [vitamin](#) deficiencies will continue to grow unless women start taking more supplements or are supported with specific advice about nutrient-rich foods."

**More information:** Keith Godfrey et al, Maternal B-vitamin and

vitamin D status before, during, and after pregnancy and the influence of supplementation preconception and during pregnancy, *PLoS Medicine* (2023). [DOI: 10.1371/journal.pmed.1004260](https://doi.org/10.1371/journal.pmed.1004260)

Provided by University of Southampton

Citation: Pregnant women are missing vital nutrients, a situation that could worsen with plant-based foods (2023, December 5) retrieved 29 April 2024 from <https://medicalxpress.com/news/2023-12-pregnant-women-vital-nutrients-situation.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.