

Experts urge caution on new pregnancy and vitamin D study

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Experts have said the new study does not demonstrate a causal link between low Vitamin D levels and pregnancy problems. Credit: AAP/Tracey Nearmy

Australian experts are urging caution over a [new study](#) that suggests a link between insufficient vitamin D and pregnancy complications like gestational diabetes, pre-eclampsia, and lower birth weight in newborns.

Vitamin D insufficiency is known to have adverse effects on health, but

while previous studies have suggested a possible link between low vitamin D and an increased risk of [pregnancy complications](#), a direct link has yet to be established.

A [new study](#) by Canadian researchers, published today in the *British Medical Journal*, found insufficient vitamin D was linked to pre-eclampsia, gestational diabetes, and lower birth weight in newborns.

The study analysed data from 31 previous studies that each involved between 95 and 1,100 pregnant women.

Gestational diabetes was investigated by 10 of the 31 studies and involved 687 gestational diabetics and a control group of 3,425 women.

Pre-eclampsia was investigated by a further nine studies, which involved 350 sufferers and a control group of 2,841 women.

[Birth weight](#) was investigated by four studies involving 314 [low birth weight](#) babies and a [control group](#) of 1,729.

The study found that women with low vitamin D levels were more likely to develop [gestational diabetes](#), had an increased chance of developing pre-eclampsia and an increased risk of [giving birth](#) to a baby small for its age.

The study authors say these results are concerning given recent evidence that vitamin D insufficiency is common during pregnancy, particularly among high risk women such as vegetarians, women with limited [sun exposure](#), and people with darker skin tones.

"Our review, summarising existing data, shows an increasingly compelling case for a causal relation between low 25-OHD (vitamin D) levels and adverse maternal and [neonatal outcomes](#)," the study said.

"Vitamin D supplementation may be a simple way to reduce the risk of these adverse outcomes."

Experts urge cautious interpretation

However, Australian experts have urged caution in interpreting the new findings.

"This study is definitely interesting and I agree that it supports the notion that there may be a causal link between maternal vitamin D levels and a variety of outcomes," said Dr Michael Tam, Lecturer in Primary Care in the School of Public Health and Community Medicine at the University of New South Wales.

"However, at the same time, these results need to be taken cautiously and we should refrain from making conclusions that cannot be supported by the data," he said.

"This study cannot, and nor does it claim to, demonstrate that these outcomes for mother and baby are due to low vitamin D."

Professor Caroline Homer, Professor of Midwifery and Director of the Centre for Midwifery, Child and Family Health at the University of Technology Sydney said while the research is helpful, it does not show cause and effect.

"It is always hard bringing together observational studies. Observational studies in themselves are limited, so to base findings on a collection of these studies means you may be basing it on lower level evidence to begin with," Professor Homer said.

Professor Homer said a greater understanding of why vitamin D insufficiency could lead to these complications was needed.

"What this study doesn't tell us is if you treat the deficiency, do you get any benefit? We just don't know, and I'd worry for women who looked at this and rushed out and took supplements," Professor Homer said.

"There is always a concern about adding something in when we don't know if it is needed, we need more evidence before we can recommend supplementation for all women."

The same edition of the *British Medical Journal* also published an editorial by Associate Professor Robyn Lucas, an expert in epidemiology and preventive medicine at the Australian National University.

Dr Lucas said better evidence is required to establish optimal levels of vitamin D in pregnancy and to justify calls for supplementation.

"Most studies are undertaken in developed countries. Yet Asian and African countries have higher infant mortality and represent half of the global population," she wrote.

"Where it has been measured, [vitamin D](#) deficiency is common in these countries, under the combined influences of darker skin, cultural practices that limit sun exposure, and, in some locations, urban air pollution blocking ultraviolet radiation."

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