

# Could vitamin D stem the tide of kids' allergies?

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FORTIFYING milk with vitamin D could be the next major step for Australia to prevent food allergies in children, an expert says.

This follows the HealthNuts study in more than 5000 one-year-old infants, which showed those with vitamin D insufficiency were three times more likely to have a food allergy compared to those with adequate levels.

They were also 11 times more likely to have peanut allergy, the Melbourne-based study showed.

Lead author Professor Katie Allen, a paediatric gastroenterologist and allergist from the Murdoch Childrens Research Institute, said the association was found only in children of parents born in Australia.

The data supported a hygiene hypothesis with vitamin D deficiency being linked to reduced microbial diversity.

"So the children of parents

born overseas, particularly those born in developing countries, have a protective microbial profile," she said.

Professor Allen said the next step was a randomised controlled trial (RTC) with infants given vitamin D drops at four months, similar to US guidelines recommending 400IU of vitamin D daily for infants.

"That's why we are calling for RTCs now," she said.

"If we don't provide the evidence base in a country

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◀ PAGE 1 where infant supplementation and vitamin D food fortification is not routine, then we may never ask the question correctly."

Professor Allen said fortifying milk with vitamin D was "the end game" because North America and Europe already fortified their milk supplies.

"They don't have the same rates of food allergy. We think it may be linked to that. It may be a way to at least stem the tide, particularly with the epidemic here in Melbourne."

The study showed no association between food allergy and ambient UVR levels at birth, season of birth or maternal use of vitamin D supplements.

In contrast, a German cohort study in 378 mother-child pairs showed high maternal and cord blood levels of vitamin D positively predicted questionnaire-documented food allergy in the children at age two. However,

only 50% of the cohort was followed up at two years.

Vitamin D expert Professor Rebecca Mason, deputy director of the Bosch Institute in Sydney, said properly conducted RTCs were needed to answer whether vitamin D could prevent food allergy.

"You have to consider, is the population vitamin D deficient, and if it's not, then supplementing won't make any difference," she said.

"If it is, you need to give adequate supplements. How do you ethically not give adequate supplements?"

An MBS review is underway into vitamin D testing, but Professor Mason said key stakeholders were omitted from the protocol, including the Australian and New Zealand Bone and Mineral Society.

A health department spokesperson said the public consultation process, which closes on 25 March, ensured all relevant stakeholders had the opportunity to be involved.

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