

# Meta-analysis tests vitamin D supplementation for weight loss theory

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Literature review: does vitamin D have a role to play in combating obesity?  
Credit: Lauren Silverman

A Curtin University study has cast doubt on claims vitamin D helps with fat loss after a meta-analysis of 12 high-quality vitamin D randomised control trials showed it had little impact on adiposity or obesity measures.

The School of Public Health study reviewed [randomised controlled trials](#) to see whether supplementation with vitamin D without [caloric restriction](#) influenced body weight and composition.

Study co-author Associate Professor Mario Soares says the research was sparked by a newfound interest in vitamin D for its extraskkeletal benefits.

"The role of vitamin D is re-emerging from its more traditional aspect of controlling calcium and [bone health](#)," he says.

"We felt it was time to look at the literature out there and come to a decision—does vitamin D by itself actually have a role to play in obesity?"

Researchers conducted the meta-analysis of studies which had the right data for either body weight, body mass index (BMI), fat mass, percentage fat mass or lean body mass.

They found, apart from a small non-significant decrease in BMI, vitamin D supplementation did not decrease measures of adiposity in the absence of caloric restriction.

Prof Soares says a lot of the literature they reviewed had been designed with bone health or bone density in mind and many did not report key findings on [body](#) composition despite measurements from dual-energy X-ray absorptiometry scans.

"Essentially we didn't find any significant effect ... in one way it's gratifying because there's nothing magical about vitamin D to make you lose weight without you reducing your calorie intake."

## **Future vitamin D research planned**

Prof Soares says there is still work to be done with vitamin D research.

"Animal data still shows very strong evidence that it has a role to play in

energy metabolism but the human evidence to date is not stacking up," he says.

"Partly that's because there are not many studies that have been specifically designed to look for it and what we're dealing with now is a lot of retrospective analysis of existing trials designed for other endpoints."

Prof Soares says his group has a new vitamin D trial planned for the second half of this year.

"Essentially what we will do is screen for people who have a poor vitamin D status, then we're going to correct their status while placing them on a weight loss diet for three months," he says.

"We're going to monitor detailed [body composition](#) at the start, during and at the end.

"We believe correcting [vitamin D](#) status during a period of weight loss is a way forward since it could augment fat loss."

Provided by Science Network WA

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