

Researcher considers dosage for vitamin D

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Giving obese teenagers a high daily dose of vitamin D3 is a safe and effective way of improving their often-compromised vitamin D status, a University of Missouri study shows.

Catherine Peterson, associate professor of nutrition and exercise [physiology](#), presented the findings at the annual meeting of Experimental Biology.

A deficiency of vitamin D — obtained through certain foods, sunlight exposure or supplements — is common in overweight teens. That's a problem because the vitamin is essential for maintaining healthy immune systems, bones, muscles and nerves. Dietary guidelines from the [Institute of Medicine](#) recommend 600 IUs per day with a tolerable upper intake of 4,000 IUs.

Lean teens need about half the level of vitamin D IUs than their obese counterparts, who don't process it as efficiently.

"If obese adolescents only consumed the recommended 600 IUs, they would be in trouble," Peterson said in a statement. "It takes 4,000 IUs to raise their vitamin D status within a sufficient range. This is much higher than the currently recommended daily amount for this age group. This indicates that physicians need to carefully evaluate the vitamin D status in their overweight and obese patients," she said.

Peterson used participants from the MU Adolescent Diabetes and Obesity clinic to test the effects and found that those given 4,000 IU a day of vitamin D3 for six months had significantly greater increases in the concentrations that indicate vitamin D status compared to participants who received a [placebo](#).

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