

## **Vitamin D supplementation does not reduce blood pressure levels**

Vitamin D supplementation has no significant effect on lowering systolic or diastolic blood pressure levels (Beveridge LA, Struthers AD, Khan F, et al. *JAMA Intern Med* 2015; March 16).

A meta-analysis was conducted of 46 clinical trials (4541 participants) that used vitamin D supplementation for any indication, and also collected blood pressure data. Individual patient data were obtained from 27 trials (3092 participants). The effect of vitamin D supplementation on systolic and diastolic blood pressure was assessed at trial- and individual-patient levels. At both the trial- and individual-patient levels, no effect of vitamin D supplementation was seen on systolic or diastolic blood pressure. At trial-level, the frequency of vitamin D dosing (i.e. daily, weekly/fortnightly, monthly or less frequent dosing) did not affect the findings. No patient characteristics were identified that could predict a better response to vitamin D treatment; this included subgroup analyses based on baseline blood pressure, baseline vitamin D levels, baseline parathyroid hormone levels, history of diabetes, and use of ACE inhibitors. The findings of this meta-analysis demonstrate that while low levels of vitamin D have been associated with elevated blood pressure, supplementation does not lower blood pressure levels. Therefore, vitamin D cannot be recommended for use as an antihypertensive agent.