

Depression Caused by Vitamin D Deficiency, Research Reveals

By: J. D. Heyes, Natural News

In another finding extolling its benefits, new research indicates that reversing vitamin D deficiency in women has a substantially positive effect on treating depression.

Results of the study, which were presented in late June at the *Endocrine Society's* 94th Annual Meeting in Houston, indicated that all other things being equal, correcting their vitamin D deficiency might have been responsible for the beneficial effects measured. The study noted that the women involved did not change their antidepressant medications or other environmental factors related to the depression - that increasing their vitamin D levels was the only change.

"Vitamin D may have an as-yet-unproven effect on mood, and its deficiency may exacerbate depression," said Sonal Pathak, MD, an endocrinologist at Bayhealth Medical Center in Dover, Del. "If this association is confirmed, it may improve how we treat depression."

Dramatic results reported

Pathak presented her team's findings in three women ranging between the ages of 42 and 66. All had been previously diagnosed with a major depressive disorder - also known as clinical depression - and were undergoing anti-depressive therapy. In addition, the patients were under treatment for either Type 2 diabetes or an underactive thyroid (hypothyroidism).

The women had risk factors for vitamin D deficiency, including low vitamin D intake and poor exposure to the sun. Each underwent a 25-hydroxyvitamin D blood test; in all three, low vitamin D levels ranging from 8.9 to 14.5 nanograms per milliliter (ng/mL) were discovered, Pathak said.

Levels below 21 ng/mL are considered vitamin D deficient, while normal vitamin D levels range from 30 ng/mL and above, according to *Endocrine Society* standards.

Over an 8-12 week period, the women were given oral vitamin D replacement therapy, which restored their vitamin D levels to normal (ranges after this treatment fell between 32-38 ng/mL). After treatment, all three of the women reported a significant improvement in their clinical depression, as per the Beck Depression Inventory - a 21-item questionnaire that assesses the severity of sadness and other depressive symptoms.

According to published reports a score of 0-9 indicates minimal depression, while a score of 10-18 indicates mild depression, 19-29 is moderate depression and 30-63 is severe.

Pathak's study found that one woman lowered her score from 32 before the vitamin D therapy to 12 - a change from severe to mild depression. Another woman's score declined from 26 to eight, meaning she now had minimal depression symptoms. The third patient's score improved from 21 to 16 after treatment, also falling to the mild range.

More than just anecdotal evidence?

This study isn't the first to suggest that vitamin D has a positive effect on mood and depression, but Pathak said the results definitely showed a need for larger, quality, randomized but controlled clinical trials to find out whether his results were typical or an aberration.

"Screening at-risk depressed patients for vitamin D deficiency and treating it appropriately may be an easy and cost-effective adjunct to mainstream therapies for depression," Pathak said.

An earlier study by a team of researchers at *Loyola University Chicago's* Marcella Niehoff School of Nursing, the results of which were published in 2010, found that vitamin D could help improve the moods of those living in colder climates during the winter months.

"Vitamin D deficiency continues to be a problem despite the nutrients' widely reported health benefits," said Sue Penckofer, PhD, RN, a professor at the institution. "Chicago winters compound this issue when more people spend time away from sunlight, which is a natural source of vitamin D."

"There is evidence to suggest that vitamin D supplementation may decrease insulin resistance," she added. "If we can stabilize insulin levels, we may be able to simply and cost effectively improve blood sugar control and reduce symptoms of depression for these women."

Sources:

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