

Your Depression May Be Due to Vitamin D Deficiency

By: J. D. Heyes, Natural News

A new study by Canadian researchers has found that some depression may be linked to a vitamin D deficiency.

"A systematic review and meta-analysis of 14 studies with a total of 31,424 participants revealed an association between vitamin D levels and depression," said a summary of the study, from researchers at the Department of Psychiatry and Behavioral Neurosciences, St Joseph's Hospital, Hamilton, Ontario, Canada.

"One case-control study, ten cross-sectional studies and three cohort studies were reviewed. Researchers found that low levels of vitamin D corresponded to depression, and that lower levels of vitamin D increased odds for depression," the summary continued.

Boost vitamin D to improve depression

The meta-analysis, led by Prof. Rebecca Anglin, involved examining six databases for research studies related to depression and vitamin D levels. The research team looked for randomized controlled trials, case-control studies, cross-sectional studies and cohort studies, in which depression was the element being studied and a vitamin D blood level was drawn as a potential intervention or risk factor.

"Overall, the summary estimates of all analyses suggest a relationship between vitamin D and depression," the research team concluded.

"Given the high prevalence of both vitamin D deficiency and depression, an association between these two conditions would have significant public health implications, particularly as supplementation with vitamin D is cost-effective and without significant adverse effects," the team said. "The observational studies to date provide some evidence for a relationship between vitamin D deficiency and depression," but more research is "urgently needed to determine whether vitamin D can prevent and treat depression."

The study's results mirrored those of earlier studies, including one that focused primarily on the link between lower vitamin D levels and depression in women.

That study, released in 2012, found that "women with moderate to severe depression had substantial improvement in their symptoms of depression after they received treatment for their vitamin D deficiency," *ScienceDaily.com* reported, adding that the study's results were presented in June at *The Endocrine Society's 94th Annual Meeting* in Houston.

The authors of the study concluded that correction of patients' vitamin D shortage could have been responsible for an improvement in their depression because the women had not adjusted or changed antidepressant medications or other environmental factors that relate to depression.

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

Pathak presented her findings in three women, ranging in age from 42 to 66, all of whom had previously been diagnosed with major depressive disorder (also known as clinical depression). All were receiving antidepressant therapy, and all were being treated for either Type-II diabetes or hypothyroidism.

Depressive state for each woman improved with therapy

Because they each had risk factors for vitamin D deficiency, such as reduced vitamin D intake and a lack of exposure to the sun, the trio was given a 25-hydroxyvitamin D blood test, which revealed low levels of vitamin D for all three, ranging from 8.9 to 14.5 nanograms per milliliter (ng/mL), Pathak reported. According to *The Endocrine Society*, levels below 21 ng/mL are considered vitamin D deficiency, and normal vitamin D levels are above 30 ng/mL.

Over the course of eight to 12 weeks, the women were given oral vitamin D replacement therapy, which restored their levels to normal. After treatment, their levels ranged from 32 to 38 ng/mL according to the study abstract.

Following their treatment, all three women reported a significant improvement in their depressive state, as measured by the Beck Depression Inventory. According to the BDI, a score of zero to nine indicates minimal depression; 10 to 18, mild depression; 19 to 29 moderate depression; and 30 to 63 indicates severe depression.

One of the women improved from 32 before vitamin D therapy to 12; another from 26 to eight; and the third fell from 21 to 16, which is also in the mild range.

"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.

Sources:

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