

# Low vitamin D levels linked to depression, psychiatrists report

January 5 2012

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Low levels of vitamin D have been linked to depression, according to UT Southwestern Medical Center psychiatrists working with the Cooper Center Longitudinal Study. It is believed to be the largest such investigation ever undertaken.

Low levels of vitamin D already are associated with a cavalcade of health woes from cardiovascular diseases to neurological ailments. This new study – published in *Mayo Clinic Proceedings* – helps clarify a debate that erupted after smaller studies produced conflicting results about the relationship between vitamin D and depression. Major depressive disorder affects nearly one in 10 adults in the U.S.

"Our findings suggest that screening for vitamin D levels in depressed patients – and perhaps screening for depression in people with low vitamin D levels – might be useful," said Dr. E. Sherwood Brown, professor of psychiatry and senior author of the study, done in conjunction with The Cooper Institute in Dallas. "But we don't have enough information yet to recommend going out and taking supplements."

UT Southwestern researchers examined the results of almost 12,600 participants from late 2006 to late 2010. Dr. Brown and colleagues from The Cooper Institute found that higher vitamin D levels were associated with a significantly decreased risk of current depression, particularly among people with a prior history of depression. Low vitamin D levels were associated with depressive symptoms, particularly those with a

history of depression, so primary care patients with a history of depression may be an important target for assessing vitamin D levels. The study did not address whether increasing vitamin D levels reduced depressive symptoms.

The scientists have not determined the exact relationship – whether low vitamin D contributes to symptoms of depression, whether depression itself contributes to lower vitamin D levels, or chemically how that happens. But vitamin D may affect neurotransmitters, inflammatory markers and other factors, which could help explain the relationship with [depression](#), said Dr. Brown, who leads the psychoneuroendocrine research program at UT Southwestern.

[Vitamin D](#) levels are now commonly tested during routine physical exams, and they already are accepted as risk factors for a number of other medical problems: autoimmune diseases; heart and vascular disease; infectious diseases; osteoporosis; obesity; diabetes; certain cancers; and neurological disorders such as Alzheimer's and Parkinson's diseases, multiple sclerosis, and general cognitive decline.

Investigators used information gathered by the institute, which has 40 years of data on runners and other fit volunteers. UT Southwestern has a partnership with the institute, a preventive medicine research and educational nonprofit located at the Cooper Aerobics Center, to develop a joint scientific medical research program aimed at improving health and preventing a wide range of chronic diseases. The institute maintains one of the world's most extensive databases – known as the Cooper Center [Longitudinal Study](#) – that includes detailed information from more than 250,000 clinic visits that has been collected since Dr. Kenneth Cooper founded the institute and clinic in 1970.

Provided by UT Southwestern Medical Center

Citation: Low vitamin D levels linked to depression, psychiatrists report (2012, January 5)  
retrieved 23 April 2024 from  
<https://medicalxpress.com/news/2012-01-vitamin-d-linked-depression-psychiatrists.html>

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