

Large population of Finnish adults shows that higher serum vitamin D levels are related to a reduced risk of depressive disorders, especially in those with poorer health to begin with.

## Higher blood Vitamin D levels may be related to a lower risk of depression

Previous research has suggested that vitamin D may be helpful in protecting against depression, but the evidence is still somewhat inconclusive. In a new study published in the *British Journal of Nutrition*, researchers investigated the potential relationship between serum vitamin D levels and the prevalence of depressive and anxiety disorders.

The study population consisted of a representative sample of Finnish adults between the ages of 30 and 79 years of age that participated in the Health 2000 survey. Of the 5,371 individuals in the study group, 354 were diagnosed with depressive disorders and 222 individuals were diagnosed with an anxiety disorder. Serum Vitamin D concentrations were determined from frozen samples taken previously. A total of 4 indicators of depression and a single indicator of anxiety were studied as variables.

Individuals with a higher serum Vitamin D concentration showed a reduced risk of depression. After adjustments for socioeconomic, lifestyle, and metabolic factors, individuals in the highest 25% of vitamin D levels had a 35% lower risk for depression when compared to individuals with vitamin D levels in the lowest 25%. Higher Vitamin D levels had the greatest impact against depression in younger men with unhealthy lifestyles, who were divorced, or who suffered from metabolic syndrome. Based on statistical analysis, it was noted that raising the vitamin D levels above 50 nmol/L (20 ng/ml) could have avoided about 19% of the depression cases in the study. Vitamin D serum levels did not correlate significantly with anxiety disorders.

The results of this study support the theory that higher serum vitamin D concentrations may be protective against depressive disorders, especially in individuals with poor socioeconomic status, diet and lifestyle choices, and metabolic health.

Tuija Jääskeläinen et al.. Higher serum 25-hydroxyvitamin D concentrations are related to a reduced risk of depression. *British Journal of Nutrition*. 2015.