

In a recent population study in German adults, deficiency of serum vitamin D was strongly associated with an increase in death from cardiovascular disease, cancer, respiratory disease, and from all-causes.

Vitamin D deficiency is correlated with all-cause, cardiovascular, cancer, and respiratory mortality

Many studies have linked overall mortality to an insufficient serum vitamin D concentration, but few have well defined risk categories. In a recent study published in the *American Journal of Clinical Nutrition*, researchers analyzed the association of serum Vitamin D concentrations with cause-specific mortality as well as overall mortality rates. Specific risk categories included cardiovascular disease, cancer, and respiratory disease.

Participants were part of a German population-based study of adults aged 50-74 years. Vitamin D levels were measured in 9,578 adults at the beginning of the study and in 5,469 participants after 5 years. Deaths were recorded during an average follow-up of 9.5 years, and were categorized as follows: 350 individuals died of cardiovascular diseases, 433 individuals died of cancer, and 55 individuals died of respiratory diseases.

When compared to subjects with adequate vitamin D status (>50 nmol/mL or 20 ng/ml), the overall mortality rate of participants with vitamin D deficiency (<30 nmol/L, or 12 ng/ml) was increased 71%. The subjects with vitamin D levels considered insufficient (30-50 nmol/mL or 12-20 ng/ml) had a 17% increased risk of overall mortality compared to the group with adequate vitamin D levels.

The deficiency of vitamin D was also related to a 39% increased risk of cardiovascular mortality, 42% increased risk of cancer mortality, and 150% increased risk of respiratory disease mortality.

The results of this large population study indicate that vitamin D deficiency is strongly correlated to an increased mortality risk from all causes, including cardiovascular disease, cancer, and respiratory diseases specifically.

Ben Schöttker et al. Strong associations of 25-hydroxyvitamin D concentrations with all-cause, cardiovascular, cancer, and respiratory disease mortality in a large cohort study. *Am J Clin Nutr* 2013 Apr; 97(4):782-793.