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A new study has shown that optimal vitamin D levels in adults with metabolic syndrome results in a 75% lower risk of death associated with cardiovascular disease.

OPTIMAL VITAMIN D LEVELS IN ADULTS WITH METABOLIC SYNDROME IS ASSOCIATED WITH REDUCED MORTALITY RATES

Previous research has indicated that optimal vitamin D levels are associated with a reduction in cardiovascular and all-cause mortality. In a new study published in the journal *Diabetes Care*, researchers investigated whether optimal vitamin D levels would be protective in individuals with metabolic syndrome. The majority of experts consider optimal blood levels of vitamin D to be between 75 nmol/L (30 ng/ml) and 125 nmol/L (50 ng/ml).

Scientists evaluated data from 1,801 men and women with metabolic syndrome who were enrolled in the Ludwigshafen Risk and Cardiovascular Health study (LURIC). Subjects included patients referred for coronary angiography from 1997 to 2000. Fasting blood samples were analyzed for 25-hydroxyvitamin D [25(OH)D], glucose and other factors, and the participants were followed for an average of 7.7 years.

The majority of subjects (92%) had suboptimal levels of vitamin D at less than 75 nmol/L (30 ng/ml) and 22% were considered severely deficient at less than 25 nmol/L (10 ng/ml). Those with optimal vitamin D levels had a 75% lower risk of mortality during the follow-up when compared to the group considered severely deficient. The risk of death from cardiovascular causes was 67% lower in the group with optimal vitamin D levels. For specific cardiovascular disease mortality, there was a strong reduction for sudden death (85%) and congestive heart failure (76%) compared to the vitamin D deficient group. The reduction in mortality was dose-dependent for each of these causes.

In this group of patients with metabolic syndrome there was a significant reduction in all-cause and cardiovascular disease mortality in those with optimal vitamin D levels. Randomized, controlled intervention trials are needed to confirm the effects of vitamin D on mortality and may help establish recommendations for supplementation in this population of adults.

G Neil Thomas et al. Vitamin D Levels Predict All-Cause and Cardiovascular Disease Mortality in Subjects With the Metabolic Syndrome: The Ludwigshafen Risk and Cardiovascular Health (LURIC) Study.