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Research shows a link between low vitamin D levels and increased frailty in older individuals. A new study looks at how that may also affect mortality rate.

LOW VITAMIN D LEVELS ARE ASSOCIATED WITH FRAILTY AND ALL-CAUSE MORTALITY IN OLDER ADULTS

It is known that low vitamin D levels may affect frailty in older adults, and fracture incidence, but until now no research has been published regarding the effect this may have on mortality. A new study published in the European Journal of Clinical Nutrition is the first to report the combined effects of vitamin D and frailty on mortality.

The study included 4,731 adults who were 60 years or older. The researchers collected information to analyze a potential correlation between three individual criteria (vitamin D levels, frailty, and mortality). The serum vitamin D status of participants was organized into quartiles. Frailty was defined as meeting three or more of the following criteria: low body mass index (BMI), slow walking, weakness, exhaustion, and low physical activity. Mortality data was collected from The Third National Health and Nutrition Examination Survey, which included 12 years of mortality follow-up data.

Analysis revealed that there was a statistically significant link between all measured criteria. Individuals in the group with the lowest serum vitamin D levels were 1.94 times more likely to suffer from frailty than those with the highest vitamin D levels. Mortality was also positively associated with frailty. When comparing mortality and vitamin D levels, older adults with low vitamin D levels had a 30 percent greater risk of death when compared to individuals in the group with the highest vitamin D levels. This research suggests adequate vitamin D levels, along with a good diet and physical activity, may help older adults stay independent and healthy longer.

E Smit, C J Crespo, Y Michael, F A Ramirez-Marrero, G R Brodowicz, S Bartlett, R E Andersen. The effect of vitamin D and frailty on mortality among non-institutionalized US older adults. European Journal of Clinical Nutrition, 2012.