

**Heart disease, stroke, heart failure, and premature death all linked to insufficient vitamin D levels**

The results of a study presented on November 16, 2009 at the American Heart Association's Scientific Conference in Orlando, Florida, confirmed a strong association between the presence of reduced vitamin D levels and a greater risk of coronary artery disease, stroke, heart failure and dying over follow-up in men and women 50 years of age and older.

Brent Muhlestein, MD and his colleagues at Intermountain Medical Center in Salt Lake City followed 27,686 subjects with no history of heart disease for an average of 1.2 years. Serum 25-hydroxyvitamin D levels obtained during routine clinical care were classified as normal at over 30 nanograms per milliliter (ng/mL), low at between 15 to 30 ng/mL or very low at less than 15 ng/mL.

Over the follow-up period, 2,614 participants developed coronary artery disease, 1,742 developed heart failure, 314 experienced a stroke and 1,193 deaths occurred. Those with very low vitamin D levels were 45 percent likelier to develop heart disease, twice as likely to develop heart failure, 78 percent more likely to experience a stroke, and 77 percent likelier to die than those with normal levels. Subjects whose vitamin D levels were classified as "low" as opposed to "very low" also had greater risks of these conditions, however, the increase compared to those with normal levels was not as great as the very low group.

"This was a unique study because the association between Vitamin D deficiency and cardiovascular disease has not been well-established," commented Dr Muhlestein, who is the director of cardiovascular research of Intermountain Medical Center's Heart Institute. "Its conclusions about how we can prevent disease and provide treatment may ultimately help us save more lives."

"Utah's population gave us a unique pool of patients whose health histories are different than patients in previous studies," he remarked. "For example, because of Utah's low use of tobacco and alcohol, we were able to narrow the focus of the study to the effects of vitamin D on the cardiovascular system."

"We concluded that among patients 50 years of age or older, even a moderate deficiency of Vitamin D levels was associated with developing coronary artery disease, heart failure, stroke, and death," noted coauthor Heidi May, PhD, MS, who is an epidemiologist with the Intermountain Medical Center research team. "This is important because vitamin D deficiency is easily treated. If increasing levels of vitamin D can decrease some risk associated with these cardiovascular diseases, it could have a significant public health impact. When you consider that cardiovascular disease is the leading cause of death in America, you understand how this research can help improve the length and quality of people's lives."

"We believe the findings are important enough to now justify randomized treatment trials of supplementation in patients with Vitamin D deficiency to determine for sure whether it can reduce the risk of heart disease," Dr Muhlestein added.

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Nutritional therapy in cerebrovascular disease associated with atherosclerosis has several interrelated goals. These include reversing endothelial dysfunction with nutrients that stimulate endothelial nitric oxide production, reducing inflammation, enhancing and restoring cerebral blood flow, and providing antioxidant support to reduce the level of damaging free radicals. A number of nutrients have been studied that often accomplish several of these goals.

There is evidence from clinical trials that vitamin D may play a modest role in blood pressure control and insulin metabolism, both important in slowing the progression of atherosclerosis and reducing risk of stroke (Dakshinamurti K et al 1996; Lind L et al 1995; Boucher BJ 1998). A recent study also showed that deficiencies in vitamin D and flavonoids may predict heart attack and stroke (Marniemi J et al 2005). This new finding is relevant because the NHANES III study, funded by the National Institutes of Health, estimated that 42 percent of African American women between 15 and 49 years of age and 32 percent of white men and women are vitamin D deficient. The overall average increases to 50 percent in the over-fifty population, and vitamin D deficiency is much higher than that in older people, who have decreased capacity to produce vitamin D from exposure to sunlight (Holick MF 2006).



"Not too long ago Cambridge University geneticist Aubrey de Grey astounded the world by saying, 'The first person to live to be 1,000 years old is certainly alive today . . . whether they realize it or not. Barring accidents and suicide, most people now 40 years or younger can expect to live for centuries.'

One person who would certainly agree with Mr. de Grey is South Florida's own William Faloon, co-founder of the renowned Life Extension Foundation."

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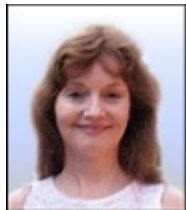
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