

Multivitamins may lower heart disease death risk

By Stephen Daniells, 20-Jul-2009

Related topics: [Research](#), [Vitamins & premixes](#), [Cardiovascular health](#)

Long-term regular consumption of a multivitamin may reduce the risk of dying from heart disease by 16 per cent, according to a new study from the US.

Intakes of [vitamin E](#) over 215 milligrams per day over the course of ten years were also associated with a 28 per cent reduction in the risk of death from cardiovascular disease, according to findings published in the American Journal of Epidemiology.

The news supports the use of [multivitamins](#) and particularly vitamin E, much-maligned and linked to increased risk of 'all-cause mortality' in a controversial meta-analysis in the Annals of Internal Medicine in 2004.

The new study, led by Gaia Pocobelli from Fred Hutchinson Cancer Research Center at the University of Washington, also contradicts conclusions from a controversial meta-analysis published originally in the Journal of the American Medical Association (2007, Vol. 297, pp. 842-857). The meta-analysis reported that supplements of vitamins A and E, and beta-carotene may increase [mortality](#) risk by up to 16 per cent. On the other hand, vitamin C did not have an effect on mortality.

In terms of other causes of death, Pocobelli report that multivitamins did not decrease the risk of either total mortality, or cancer mortality. On the other hand, vitamins C and E were associated with small decreases in risk of total mortality.

Multivitamin use

According to a National Institutes of Health (NIH) State-of-the-Science Panel, half of the American population routinely use dietary supplements, with their annual spend estimated at over \$20 billion.

Recent results of the National Health and Nutrition Examination Survey showed that 35 per cent of the US adult population regularly consumes one or more types of multivitamin product (Am. J. Epidemiol., 2004, Vol. 160, Pages 339-349).

Study details

The Seattle-based researchers analysed the 10-year use of multivitamin, vitamins C and E supplements on 5-year total mortality, and death from cancer or

cardiovascular disease (CVD).

Data from 77,719 Washington State residents aged between 50 and 76 was obtained by a self-administered questionnaire. The data showed that the use of multivitamins and vitamin E were associated with 16 and 28 per cent decreased risk of death from CVD.

"Multivitamin and vitamin E use were not associated with cancer mortality," added the researchers.

Multivitamins and 'biological age'

Earlier this year, scientists from the National Institute of Environmental Health Sciences reported that the cells of multivitamin users may have a younger biological age than cells from non-users.

Researchers led by Honglei Chen, MD, PhD, looked at the length of telomeres, DNA sequences at the end of chromosomes that shorten as cells replicate and age.

The study, published in the American Journal of Clinical Nutrition (June 2009, Vol. 89, pp. 1857-1863) was reported to be the first epidemiologic investigation of multivitamin use and telomere length.

"Regular multivitamin users tend to follow a healthy lifestyle and have a higher intake of micronutrients, which sometimes makes it difficult to interpret epidemiologic observations on multivitamin use," wrote Dr Chen.

Source: American Journal of Epidemiology

Published online ahead of print, doi:10.1093/aje/kwp167

"Use of Supplements of Multivitamins, Vitamin C, and Vitamin E in Relation to Mortality"

Authors: G. Pocobelli, U. Peters, A.R. Kristal, E. White