

Vitamins C and E, multivitamins and mortality

Over 77,000 patients aged 50-76 filled out questionnaires on use of supplements, diet and other health characteristics, and their survival was then tracked for 10 years by a group of researchers. The researchers explored several relationships of mortality and supplementation. They found that mortality from all causes was not related to multivitamin use, although users of vitamin C and vitamin E supplements had small decreases in total mortality (approximately 11% for those in the top third of vitamin C and E use). For non-smokers (but not current smokers or recent quitters), those in the top third of vitamin C use had a 24% lower risk of death while those in the top third of vitamin E use had a 20% lower risk. For people who were overweight (body mass index of 30 or greater), and for people who had a lower-than-average intake of fruit and vegetables, those who in the top third of vitamin C and E use also had lower mortality. The researchers commented that overweight people and those who don't eat much fruit and vegetables have higher levels of oxidative stress, which antioxidants like vitamins C and E could counteract – though apparently simple vitamin supplements aren't able to overcome the very high levels of oxidative stress among smokers. In addition to the results for mortality due to all causes, the researchers found that those who took multivitamins daily had a 16% lower risk of death from cardiovascular disease, while those who took vitamin E at levels over 215 mg had a 28% lower risk of cardiovascular disease mortality. Some of these effects – but clearly not all -- may have resulted from supplement users having more healthful lifestyles than non-users.

Pocobelli G et al. Use of Supplements of Multivitamins, Vitamin C, and Vitamin E in Relation to Mortality. *Am J Epidemiol.* 2009 Jul 13. Epublication.

To summarize: People who used multivitamins or vitamin E supplements daily during 10 years were significantly less likely to die of cardiovascular diseases than non-users of supplements, while users of vitamin C and E supplements were less likely to die from any cause.