

ORIGINAL ARTICLE

## Association of Nut Consumption with Total and Cause-Specific Mortality

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### ABSTRACT

#### BACKGROUND

Increased nut consumption has been associated with a reduced risk of major chronic diseases, including cardiovascular disease and type 2 diabetes mellitus. However, the association between nut consumption and mortality remains unclear.

#### METHODS

We examined the association between nut consumption and subsequent total and cause-specific mortality among 76,464 women in the Nurses' Health Study (1980–2010) and 42,498 men in the Health Professionals Follow-up Study (1986–2010). Participants with a history of cancer, heart disease, or stroke were excluded. Nut consumption was assessed at baseline and updated every 2 to 4 years.

#### RESULTS

During 3,038,853 person-years of follow-up, 16,200 women and 11,229 men died. Nut consumption was inversely associated with total mortality among both women and men, after adjustment for other known or suspected risk factors. The pooled multivariate hazard ratios for death among participants who ate nuts, as compared with those who did not, were 0.93 (95% confidence interval [CI], 0.90 to 0.96) for the consumption of nuts less than once per week, 0.89 (95% CI, 0.86 to 0.93) for once per week, 0.87 (95% CI, 0.83 to 0.90) for two to four times per week, 0.85 (95% CI, 0.79 to 0.91) for five or six times per week, and 0.80 (95% CI, 0.73 to 0.86) for seven or more times per week ( $P < 0.001$  for trend). Significant inverse associations were also observed between nut consumption and deaths due to cancer, heart disease, and respiratory disease.

#### CONCLUSIONS

In two large, independent cohorts of nurses and other health professionals, the frequency of nut consumption was inversely associated with total and cause-specific mortality, independently of other predictors of death. (Funded by the National Institutes of Health and the International Tree Nut Council Nutrition Research and Education Foundation.)

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