

Association between dietary fibre intake and fruit, vegetable or whole-grain consumption and the risk of CVD: results from the PREvención con DIeta MEDiterránea (PREDIMED) trial.

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Prospective studies assessing the association between fibre intake or fibre-rich food consumption and the risk of CVD have often been limited by baseline assessment of diet. Thus far, no study has used yearly repeated measurements of dietary changes during follow-up. Moreover, previous studies included healthy and selected participants who did not represent subjects at high cardiovascular risk. We used yearly repeated measurements of diet to investigate the association between fibre intake and CVD in a Mediterranean cohort of elderly adults at high cardiovascular risk. We followed-up 7216 men (55-80 years) and women (60-80 years) initially free of CVD for up to 7 years in the PREvención con DIeta MEDiterránea study (registered as ISRCTN35739639). A 137-item validated FFQ was repeated yearly to assess diet. The primary end point, confirmed by a blinded ad hoc Event Adjudication Committee, was a composite of cardiovascular death, myocardial infarction and stroke. Time-dependent Cox's regression models were used to estimate the risk of CVD according to baseline dietary exposures and to their yearly updated changes. We found a significant inverse association for fibre (P for trend=0.020) and fruits (P for trend=0.024) in age-sex adjusted models, but the statistical significance was lost in fully adjusted models. However, we found a significant inverse association with CVD incidence for the sum of fruit and vegetable consumption. Participants who consumed in total nine or more servings/d of fruits plus vegetables had a hazard ratio 0.60 (95 % CI 0.40, 0.96) of CVD in comparison with those consuming <5 servings/d.