Dietary glycemic index, dietary glycemic load, and cardiovascular disease in middle-aged and older Swedish men.

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Abstract

BACKGROUND: In women, dietary glycemic index (GI) and dietary glycemic load (GL) have been associated with cardiovascular disease; in men, however, the evidence for an association is weaker.

OBJECTIVE: We tested the hypothesis that men consuming diets high in GI or GL have a greater risk of cardiovascular disease.

DESIGN: At baseline, we assessed dietary GI and dietary GL by using food-frequency questionnaires in 36 246 Swedish men aged 45-79 y without diabetes or prior cardiovascular disease. Participants were followed through inpatient, cause-of-death, and death registries from 1 January 1998 until 31 December 2003 for myocardial infarction, ischemic stroke, hemorrhagic stroke, and cardiovascular mortality and until 31 December 2005 for all-cause mortality. We used Cox models with age as the time scale to estimate relative risks adjusted for cigarette smoking, body mass index, physical activity, demographic characteristics, and nutritional factors.

RESULTS: Dietary GI and dietary GL were not associated with myocardial infarction (n = 1324), ischemic stroke (n = 692), cardiovascular mortality (n = 785), or all-cause mortality (n = 2959). Dietary GL was associated with hemorrhagic stroke [n = 165; relative risk = 1.44 comparing extreme quartiles (95% CI: 0.91, 2.27); P for trend = 0.047].
CONCLUSIONS: Dietary GI and dietary GL were not associated with ischemic cardiovascular disease or mortality, but dietary GL was associated with a greater risk of hemorrhagic stroke. Discrepancies between these findings and those of previous studies may be due to variations in the associations by sex or to differences in dietary contributions to GI and GL.