Dietary carbohydrates and glycaemic load and the incidence of symptomatic gall stone disease in men.

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Abstract

BACKGROUND: Diets with a high glycaemic response exacerbate the metabolic consequences of the insulin resistance syndrome. Their effects on the incidence of gall stone disease are not clear, particularly in men.

METHODS: Dietary information was collected as part of the Health Professionals Follow up Study starting in 1986 using a semiquantitative food frequency questionnaire with follow up until 1998. On biennial questionnaires participants reported new symptomatic gall stone disease, diagnosed by radiology, and whether they had undergone cholecystectomy.

RESULTS: During 12 years of follow up, we documented 1810 new cases of symptomatic gall stones. After adjusting for age and other known or suspected risk factors in multivariate models, the relative risk (RR) for the highest compared with the lowest quintile of carbohydrate intake was 1.59 (95% confidence interval (CI) 1.25, 2.02; p for trend = 0.002). The RR for the highest compared with the lowest quintile of dietary glycaemic load was 1.50 (95% CI 1.20, 1.88; p for trend = 0.0008), and 1.18 for dietary glycaemic index (95% CI 1.01, 1.39; p for trend = 0.04). Independent positive associations were also seen for intakes of starch, sucrose, and fructose.

CONCLUSIONS: Our findings suggest that a high intake of carbohydrate, glycaemic load, and glycaemic index increases the risk of symptomatic gall stone disease in men. These results add to the concern that low fat high carbohydrate diets may not be an optimal dietary recommendation.