

# Abstract

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## **Fish consumption, marine omega-3 fatty acids, and incidence of heart failure: a population-based prospective study of middle-aged and elderly men.**

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**AIMS:** Fatty fish and marine omega-3 fatty acids were associated with lower rates of heart failure (HF) among US elderly, but this has not been confirmed in broader age ranges or other populations where source and type of fish may differ. We therefore conducted a population-based, prospective study of 39 367 middle-aged and older Swedish men.

**METHODS AND RESULTS:** Diet was measured using food-frequency questionnaires. Men were followed for HF through Swedish inpatient and cause-of-death registers from 1 January 1998 to 31 December 2004. We used proportional hazards models adjusted for age and other covariates to estimate hazard ratios (HR). Compared with no consumption, men who ate fatty fish once per week had an HR of 0.88 (95% CI 0.68-1.13). Hazard ratios for consumption two times per week and  $\geq 3$  times per week were 0.99 and 0.97, respectively. Hazard ratios across quintiles of marine omega-3 were 1, 0.94 (95% CI 0.74-1.20), 0.67 (95% CI 0.50-0.90), 0.89 (95% CI 0.68-1.16), 1.00 (95% CI 0.77-1.29).

**CONCLUSION:** In this population, moderate intake of fatty fish and marine omega-3 fatty acids was associated with lower rates of HF, though the association for fish intake was not statistically significant; higher intake was not associated with additional benefit.

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