Fish Consumption and Risk of Stroke in Men

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Context  The effect of fish consumption or long-chain omega-3 polyunsaturated fatty acid (PUFA) intake on risk of stroke remains uncertain.

Objective  To examine the relation of fish consumption and long-chain omega-3 PUFA intake and risk of stroke in men.

Design and Setting  The Health Professional Follow-up Study, a US prospective cohort study with 12 years of follow-up.

Participants  A total of 43 671 men aged 40 to 75 years who completed a detailed and validated semiquantitative food frequency questionnaire and who were free of cardiovascular disease at baseline in 1986.

Main Outcome Measure  Relative risk (RR) of stroke by subtype based on cumulative average fish consumption or long-chain omega-3 PUFA intake, ascertained in 1986, 1990, and 1994.

Results  We documented 608 strokes during the 12-year follow-up period, including 377 ischemic, 106 hemorrhagic, and 125 unclassified strokes. Compared with men who consumed fish less than once per month, the multivariate RR of ischemic stroke was significantly lower among those who ate fish 1 to 3 times per month (RR, 0.57; 95% confidence interval [CI], 0.35-0.95). However, a higher frequency of fish intake was not associated with further risk reduction; the RR was 0.54 (95% CI, 0.31-0.94) for men who consumed fish 5 or more times per week. This lack of linearity was confirmed by spline analyses. By dichotomized fish intake, the multivariate RR for men who consumed fish at least once per month compared with those who ate fish less than once per month was 0.56 (95% CI, 0.38-0.83) for ischemic stroke and 1.36 (95% CI, 0.48-3.82) for hemorrhagic stroke. The inverse association between fish intake and risk of ischemic stroke was not materially modified by use of aspirin. No significant associations were found between fish or long-chain omega-3 PUFA intake and risk of hemorrhagic stroke.

Conclusion  Our findings suggest that eating fish once per month or more can reduce the risk of ischemic stroke in men.

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