

Impact of a healthy lifestyle on all-cause and cardiovascular mortality after stroke in the USA

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Abstract

Background Little is known about the effects of a healthy lifestyle on mortality after stroke. This study assessed whether five healthy lifestyle factors had independent and dose dependent associations with all-cause and cardiovascular mortality after stroke.

Methods In a nationally representative sample of the US population (n=15 299) with previous stroke (n=649) followed from survey participation (1988–1994) through to mortality assessment (2000), the relationship between five factors (eating ≥ 5 servings of fruits/vegetables per day, exercising >12 times/month, having a body mass index of 18.5–29.9 mg/kg², moderate alcohol use [1 drink/day for women and 2 drinks/day for men] and not smoking) and all-cause and cardiovascular mortality was assessed.

Results Mean age was 67.0 years (SE 1.1 years) and 53% were women. After adjusting for covariates, abstaining from smoking (HR 0.57, CI 0.34 to 0.98) and exercising regularly (HR 0.66, CI 0.44 to 0.99) were associated with lower all-cause mortality but no individual factors had independent associations with cardiovascular mortality. All-cause mortality decreased with higher numbers of healthy behaviours (1–3 factors vs none: HR 0.12, CI 0.03 to 0.47; 4–5 factors vs none: HR 0.04, CI 0.01 to 0.20; 4–5 factors vs 1–3 factors: HR 0.38, CI 0.22 to 0.66; trend p=0.04). Similar effects were observed for cardiovascular mortality (4–5 factors vs none: HR 0.08, CI 0.01 to 0.66; 1–3 factors vs none: HR 0.15, CI 0.02 to 1.15; 4–5 factors vs 1–3 factors: HR 0.53, CI 0.28 to 0.98; trend p=0.18).

Conclusions Regular exercise and abstinence from smoking were independently associated with lower all-cause mortality after stroke. Combinations of healthy lifestyle factors were associated with lower all-cause and cardiovascular mortality in a dose dependent fashion.