

# New study finds smoking predicts increased stroke risk for your spouse

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Although Second Hand Smoke (SHS) is widely accepted as a risk factor for coronary heart disease, there have been few studies investigating the association of SHS and stroke risk. In a new study, published in the September 2008 issue of the *American Journal of Preventive Medicine*, researchers report on evidence of increased risk of stroke for spouses of smokers.

For those who never smoked, being married to a current smoker was associated with a 42% increase in risk of stroke compared to being married to a never-smoker. For former smokers, being married to a current smoker was associated with a 72% increase in risk compared to being married to a never-smoker. Being married to a former smoker was not associated with any increase in risk compared to being married to a never-smoker. This suggests that although stroke risk is elevated if your spouse smokes, that risk is eliminated if your spouse stops smoking. For example, never-smokers married to former smokers had nearly the same stroke risk as never-smokers married to never-smokers. Current smokers had significantly elevated stroke rates compared to never-smokers, and spousal smoking status did not affect this risk among current smokers.

The data were drawn from the Health and Retirement Study (HRS), a National Institute on Aging sponsored longitudinal survey of U.S. adults nationwide aged  $\geq 50$  years and their spouses. Enrollments occurred in 1992, 1993, 1998 and 2004 and final analyses included 16,225 respondents. Spousal smoking status was assessed at the time of enrollment and participants were followed an average of 9.1 years after

enrollment for the incidence of stroke. All models were adjusted for age; race; Hispanic ethnicity; Southern birthstate; parental education; paternal occupation class; years of education; baseline income; baseline wealth; obesity; overweight; alcohol use; and diagnosed hypertension, diabetes or heart disease.

Recent National Health and Nutrition Examination Survey (NHANES) findings for women also suggested that a husband's smoking increased the wife's risk of stroke, but in NHANES this applied only among smoking women and not among nonsmoking women. The current study found that never-smoking women married to currently smoking husbands had an increased stroke risk, compared to never-smoking women married to never-smoking husbands. This apparent discrepancy may arise from sampling differences, where NHANES participants are younger and stroke rates are lower than in HRS. Because nonsmokers have lower overall stroke risks, spousal smoking may increase stroke risk for current smokers at younger ages but emerge as a detectable risk factor for nonsmokers only at older ages.

Writing in the article, M. Maria Glymour, ScD, Harvard School of Public Health, states, "These findings indicate that spousal smoking increases stroke risk among nonsmokers and former smokers. The health benefits of quitting smoking likely extend beyond individual smokers to affect their spouses, potentially multiplying the benefits of smoking cessation."

Source: Elsevier Health Sciences

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