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Study highlights:

- An overall healthy lifestyle of not smoking, exercising daily, consuming a prudent diet, drinking alcohol in moderation and having a healthy weight is associated with lower risk of stroke, especially ischemic stroke.
- Healthy lifestyle was associated with an 80 percent lower risk of ischemic stroke.
- The study involved health professionals who may have healthier habits than the general population.

American Heart Association rapid access journal report:
Healthy lifestyle dramatically cuts stroke risk

DALLAS, Aug. 12 — Following an overall healthy lifestyle that lowers the risk of heart disease and diabetes can also dramatically lower the risk of stroke, according to a report in *Circulation: Journal of the American Heart Association*.

In the study, people with five healthy lifestyle habits had about an 80 percent lower risk of ischemic stroke compared to people with none of the healthy habits. Ischemic stroke, which results when a blood vessel supplying blood to the brain becomes obstructed, accounts for the majority of strokes.

An overall healthy lifestyle of not smoking, exercising daily, consuming a prudent diet, drinking alcohol in moderation and maintaining a healthy weight is associated with lowering the risks of multiple chronic diseases.

“However, stroke may differ from other diseases and may not share the same risk factors. Therefore, we explored whether this same lifestyle would serve as an effective approach for also lowering risk of stroke,” said Stephanie E. Chiuve, Sc.D., lead author of the study and a research associate in the department of nutrition at the Harvard School of Public Health in Boston, Mass.

Chiuve and colleagues examined five lifestyle factors:

- Not smoking;
- Maintaining a healthy weight (with BMI less than 25 kg/m²) during middle age;
- Exercising 30 minutes or more each day;
- Eating a healthy diet, with an emphasis on high intakes of fruits and vegetables, cereal fiber, chicken and fish, nuts, legumes, low *trans* and saturated fats, and taking a multivitamin for at least five years;
- Drinking alcohol in moderation (one-half to one drink a day for women and one-half to two drinks a day for men).

They followed 43,685 men (average age 54) and 71,243 women (average age 50) – all health professionals who participated in the Health Professionals Follow-up Study or the Nurses’ Health Study. At the start of the study, the participants were free of major chronic diseases, such as heart disease, diabetes and cancer. The participants provided information on their medical condition and lifestyle factors every two years via self-administered questionnaires between 1984 and 2002 for nurses and 1986 and 2002 for health professionals. During the study, 1,559 women and 994 men had strokes.

Women with all five healthy lifestyle factors had a 79 percent lower risk of total stroke and 81 percent lower risk of ischemic stroke, compared to women with none of the lifestyle factors.

Men with all five healthy lifestyle factors had a 69 percent lower risk of total stroke and 80 percent lower risk of ischemic stroke, compared to men with none of the lifestyle factors.

“More than half of ischemic strokes — 52 percent in men and 54 percent in women — may have been prevented through adherence to a healthy lifestyle,” Chiuve said. “For total stroke, 47 percent of cases in the women and 35 percent of cases in the men may have been prevented.

“This study shows that following a healthy lifestyle, which has been associated with up to 80 percent lower risk of coronary heart disease and 90 percent lower risk of diabetes, may also prevent more than half of ischemic strokes,” Chiuve said.

The study is limited because it was observational and habits were self-reported. However, the study may underestimate the burden of unhealthy behaviors because health professionals were studied, researchers said. The general population may have worse health habits. Future research should focus on understanding the differences in risk factors between hemorrhagic and ischemic stroke types, leading to a better understanding of how to prevent stroke, in general, Chiuve said.

Co-authors are Kathryn M. Rexrode, M.D., M.P.H.; Donna Spiegelman, Sc.D.; Giancarlo Logroscino, M.D., Ph.D.; JoAnn E. Manson, M.D., Dr.PH.; and Eric B. Rimm, Sc.D.

Individual author disclosures can be found on the manuscript.

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Editor’s note: For more information on stroke, visit the American Stroke Association Web site: strokeassociation.org.

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