

Depression linked to increased risk of stroke in women

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Depressed women may face an increased risk of stroke, according to new research reported in *Stroke: Journal of the American Heart Association*.

In six years of follow-up of [women](#) in the Nurses' Health Study, researchers found that a history of [depression](#) was associated with a 29 percent increased risk of total stroke - even after considering other stroke risk factors. Women who used anti-depressant medication - particularly selective serotonin reuptake inhibitors- had a 39 percent increased risk of stroke. Examples of these drugs are Prozac, Zoloft, and Celexa.

Anti-depressant medication use may be an indicator of depression severity, said Kathryn Rexrode, M.D., the study's senior author and Associate Physician at Brigham and Women's Hospital in Boston, Mass. "I don't think the medications themselves are the primary cause of the risk. This study does not suggest that people should stop their medications to reduce the risk of stroke."

Researchers followed 80,574 women 54 to 79 years old in the Nurses' Health Study from 2000-06 without a prior history of stroke. They assessed depressive symptoms multiple times with a Mental Health Index. Anti-depressant use was reported every two years beginning in 1996, and physicians diagnosed depression beginning in 2000.

Depression was defined as currently reporting or having a history of

depression.

The reported prevalence of depression at baseline in the women was 22 percent, and 1,033 stroke cases were documented during six years of follow-up.

Compared to women without a history of depression, [depressed women](#) were more likely to be single, smokers and less physically active. They were also slightly younger, had a higher body mass index and more coexisting conditions such as high blood pressure, heart disease and diabetes.

"Depression can prevent individuals from controlling other medical problems such as diabetes and hypertension, from taking medications regularly or pursuing other healthy lifestyle measures such as exercise," said Rexrode, who is also Assistant Professor of Medicine at Harvard Medical School. "All these factors could contribute to increased risk."

Depression may be associated with an increased risk of stroke through a variety of mechanisms. It may be linked to inflammation, which increases the risk of stroke as well as other conditions or underlying vascular disease in the brain, said An Pan, Ph.D., lead author of the study and a research scientist at the Harvard School of Public Health. "Regardless of the mechanism, recognizing that depressed individuals may be at a higher risk of stroke may help the physician focus on not only treating the depression, but treating stroke risk factors such as hypertension, diabetes and elevated cholesterol as well as addressing lifestyle behaviors such as smoking and exercise."

Among limitations of the study, the participants were predominantly white registered nurses, it excluded women without detailed information on depression measures and the participants with onset of stroke at a young age.

"We cannot infer cause or fully exclude the possibility that the results could be explained by other unmeasured unknown factors," Pan said. "Although the underlying mechanisms remain unclear, recognizing that depressed women may be at a higher risk of [stroke](#) merits additional research into preventive strategies in this group."

Provided by American Heart Association

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