

Hopelessness linked to thickening of neck arteries, stroke in healthy women

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Feelings of hopelessness appear to be associated with increased thickening of neck arteries in healthy, middle-aged women, while apathy among stroke survivors appears common and may impede recovery, according to two unrelated studies reported in *Stroke: Journal of the American Heart Association*.

Researchers from the University of Minnesota in Minneapolis said hopelessness — negative thinking and feelings of uselessness — affects arteries independent of [clinical depression](#) and other known cardiovascular risk factors before women develop clinically relevant [cardiovascular disease](#). The study found:

- A consistent, progressive and linear association between increasing carotid artery intimal-medial thickness (IMT) and rising hopelessness.
- The overall difference in arterial thickening between women with higher versus lower hopelessness scores, about .02 millimeters (mm), was equal to about one year of thickening.
- Those with the highest hopelessness scores had an average .06 mm greater thickening than those in the lowest group — a "potentially clinically significant" difference, according to the authors. This correlation remained after adjusting for any influence of age, race, income, cardiovascular risk factors and

depression.

"Previous studies have shown that hopelessness is associated with cardiovascular disease outcomes in men and also in women with documented [heart disease](#). However, this is the first study to suggest that hopelessness may be related to subclinical cardiovascular disease in women without clinical symptoms of heart disease and who are generally healthy," said Susan A. Everson-Rose, Ph.D., M.P.H., senior author of the study, associate director of the Program in Health Disparities Research and associate professor of medicine at the University of Minnesota in Minneapolis.

"These findings suggest that women who experience feelings of hopelessness may have greater risk for future heart disease and stroke," she said. "In fact, our data indicate that hopelessness may be uniquely related to cardiovascular disease risk. We did not see similar relations when looking at global depressive symptoms."

Researchers used data from Chicago and Pittsburgh sites of the Study of Women's Health Across the Nation (SWAN) to examine associations of hopelessness and depressive symptoms with carotid IMT, an early marker of atherosclerosis. They looked at 559 women (average age 50, 62 percent white, 38 percent African American) without clinical cardiovascular disease.

They measured hopelessness with a two-item questionnaire assessing expectancies regarding future and personal goals. Depressive symptoms were measured with the 20-item Center for Epidemiologic Studies Depression Scale. IMT was assessed with ultrasound of the carotid arteries.

"The findings we observed are based on cross-sectional data — a snapshot in time — so we look forward to examining the longitudinal

relations between hopelessness and heart disease risk in women," Everson-Rose said.

The paper's lead author, Mary O. Whipple, B.A., was a summer research intern during the study. Other co-authors are Tené T. Lewis, Ph.D.; Kim Sutton-Tyrrell, Dr.P.H.; Karen A. Matthews, Ph.D.; Emma Barinas-Mitchell, Ph.D. and Lynda H. Powell, Ph.D. This study was partially funded by the National Institutes of Health.

Apathy interferes with stroke recovery

In an unrelated one-year study of apathy in first-time stroke patients, researchers at McGill University in Montreal said half of all survivors experience some apathy and even "minor apathy" impedes recovery.

Compared to survivors with "low apathy," those with "minor," "high," "worsening" or "improving" apathy scored lower on physical function, participation, health perception and overall physical health.

"Apathy is generally understudied in stroke patients, but we found that even relatively low levels can seriously impede recovery," said Nancy E. Mayo, Ph.D., lead author of the study and the James McGill Professor in the Department of Medicine.

From a health perspective, apathy refers to a general lack of emotion, interest or concern. While apathy and depression were also related, they are not synonymous.

In the study, family members rated stroke survivors' interest in activities by using statements such as the survivor "waits for someone to do things that he/she can do for self" and stroke survivor "just sits and watches." The study is the first to use family members to rate apathy levels among [stroke](#) survivors.

Every four months, 408 family caregivers received an apathy questionnaire. Thirty-three percent of survivors maintained minor apathy throughout the first year, while 3 percent maintained high levels throughout the first year, researchers said. About 7 percent showed worsening apathy during the year and another 7 percent showed improving apathy.

Poor cognitive status, very low functional status and a greater number of co-existing conditions predicted higher apathy, researchers said.

"We need a better understanding of apathy in post-stroke patients because it appears to be an important, yet largely overlooked aspect of their recovery," Mayo said.

Source: American Heart Association ([news](#) : [web](#))

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