

Seven healthy habits linked to lower risk of dementia in those with genetic risk

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Seven healthy habits and lifestyle factors may play a role in lowering the risk of dementia in people with the highest genetic risk, according to research published in the May 25, 2022, online issue of *Neurology*, the

medical journal of the American Academy of Neurology.

The seven cardiovascular and brain health factors, known as the American Heart Association's Life's Simple 7, are: being active, eating better, losing weight, not smoking, maintaining a healthy blood pressure, controlling cholesterol, and reducing blood sugar.

"These [healthy habits](#) in the Life's Simple 7 have been linked to a lower risk of dementia overall, but it is uncertain whether the same applies to people with a high [genetic risk](#)," said study author Adrienne Tin, Ph.D., of the University of Mississippi Medical Center in Jackson. "The good news is that even for people who are at the highest genetic risk, living by this same healthier lifestyle are likely to have a lower risk of dementia."

The study looked at 8,823 people with European ancestry and 2,738 people with African ancestry who were followed for 30 years. People had an average age of 54 at the beginning of the study.

Study participants reported their levels in all seven health factors. Total scores ranged from 0 to 14, with 0 representing the most unhealthy score and 14 representing the most healthy score. The average score among those with European ancestry was 8.3 and the average score among those with African ancestry was 6.6.

Researchers calculated genetic risk scores at the start of the study using genome-wide statistics of Alzheimer's disease, which have been used to study the genetic risk for dementia.

Participants with European ancestry were divided into five groups and those with African ancestry were divided into three groups based on genetic risk scores. The group with the highest genetic risk included people who had at least one copy of the APOE gene variant associated with Alzheimer's disease, APOE e4. Of those with European ancestry,

27.9% had the APOE e4 variant, while of those who had African ancestry, 40.4% had the APOE e4 variant. The group with the lowest risk had the APOE e2 variant, which has been associated with a decreased risk of dementia.

By the end of the study, 1,603 people with European ancestry had developed dementia and 631 people with African ancestry had developed dementia.

For people with European ancestry, researchers found that people with the highest scores in the lifestyle factors had a lower risk of dementia across all five genetic risk groups, including the group with the highest genetic [risk of dementia](#). For each one-point increase in the lifestyle factor score, there was a 9% lower risk of developing dementia. Among those with European ancestry, compared with the low category of the lifestyle factor score, the intermediate and high categories were associated with 30% and 43% lower risk for dementia, respectively. Among those with African ancestry, the intermediate and high categories were associated with 6% and 17% lower risk for dementia, respectively.

Among people with African ancestry, researchers found a similar pattern of declining dementia risk across all three groups among those with higher scores on the [lifestyle factors](#). But researchers said the smaller number of participants in this group limited the findings, so more research is needed.

"Larger sample sizes from diverse populations are needed to get more reliable estimates of the effects of these modifiable health factors on [dementia](#) risk within different genetic risk groups and ancestral backgrounds," Tin said.

A limitation of the study was the smaller sample size among people with African [ancestry](#) and that many African American participants were

recruited from one location.

Provided by American Academy of Neurology

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