

Increases in heart disease risk factors may decrease brain function

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Brain function in adults as young as 35 may decline as their heart disease risk factors increase, according to new research in the American Heart Association journal *Stroke*.

"Young adults may think the consequences of smoking or being overweight are years down the road, but they aren't," said Hanneke Joosten, M.D., lead author and nephrology fellow at the University Medical Center in Groningen, The Netherlands.

"Most people know the negative effects of heart risk factors such as heart attack, stroke and renal impairment, but they do not realize it affects [cognitive health](#). What's bad for the heart is also bad for the brain."

The Dutch study included 3,778 participants 35- to 82-years-old who underwent cognitive function tests that measure the ability to plan and reason and to initiate and switch tasks. A separate test gauged memory function. The Framingham Risk Score determined their risk for cardiovascular events in the next 10 years.

Researchers found:

- Participants with the most heart disease risks performed 50 percent worse on cognitive tests as compared to participants with the lowest risk profile.

- The overall Framingham Risk Score, age, diabetes, [bad cholesterol](#) and smoking were negatively linked to poor cognitive scores.
- Compared to non-smoking participants, those who smoked one to 15 cigarettes daily had a decrease in cognitive score of 2.41 points and those smoking more than 16 cigarettes daily had a decrease of 3.43 points. The memory scores had a similar association.
- Two risk factors—smoking and diabetes—were strong determinants of cognitive function.

"There clearly is a dose response among smokers, with [heavy smokers](#) having a lower cognitive function than light or non-smokers," Joosten said. "It is likely that smoking cessation has a beneficial effect on cognitive function."

Health professionals need to be aware of cognitive function in patients with risk factors for cardiovascular disease. [Cardiovascular risk factors](#), especially those that are modifiable like smoking and obesity, need ongoing attention from the medical profession, government and food industry, she said. "Smoking cessation programs might not only prevent cancer, stroke and cardiovascular events, but also cognitive damage."

Provided by American Heart Association

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