Young Adults With Heart Issues Face Risk of Cognitive Decline

Hypertension, high glucose levels and obesity in early adulthood could lead to thinking and memory problems decadeslater.

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New study findings published in Neurology, a medical journal of the American Academy of Neurology, suggest that people in their 20s and 30s with high blood pressure, high blood sugar levels and obesity are more likely to experience problems with thinking and memory skills later in life.

For the study, researchers assessed a total of 15,000 people between ages 18 and 95 who took part in four separate studiesand followed them for 10 to 30 years. Investigators reviewedtheir blood glucose, blood pressure and cholesterol levels and body mass index (BMI) and tested all participants' thinking and memory skills every one to two years.

For participants who were older at the study's start, researchers estimated their cardiovascular risk factors when they were younger. Next, they determined whether cardiovascular problems in early adulthood, middle age and late life were linked to a bigger decline in scores on thinking and memory tests when people got older.

Findings showed that a high BMI, high blood pressure and high glucose levels at each time interval could be linked to a greater decline in cognitive thinking skills in late adulthood. Furthermore, the greatest change in thinking skills over 10 years occurred in those who experienced these health problems in early adulthood. (The results remained consistent even after adjusting for education level, age and sex—factors known to affect thinking skills.)

In addition, scientists failed to find any association between individuals' high total cholesterol levels during any time period and a greater decline in thinking.

On the thinking tests, during a 10-year period, adults in their 20s and 30s with a BMI higher than

30 (considered obese) were more likely to score three to four points worse than those in the same age group with a BMI within the normal range (18.5 to 24.9).

Among people with a systolic (upper number) blood pressure reading higher than 140 mmHg in their 20s and 30s, the results were similar. Additionally, researchers noted that few individuals exhibited high blood sugar levels in early adulthood. Those who did, however, were more likely to experience cognitive decline, as suggested by a 9- to 10-point drop in their thinking scores.

“With more young people developing diabetes and obesity in early adulthood, along with higher levels of underdiagnosed and undertreated cardiovascular problems, this could have significant public health implications for cognitive health in late life,” said Kristine Yaffe, MD, of the University of California, San Francisco, a member of the American Academy of Neurology and the study’s author. “The impact of reducing these risk factors could be substantial.”

Despite these findings, Yaffe stressed that the study shows only an association and not a cause-and-effect relationship between these health issues and cognitive problems later in life.

For related coverage, read “High Blood Pressure Can Accelerate Cognitive Decline No Matter the Age of Onset.”
