

# Heart health problems in your 20s may affect thinking skills decades later

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People in their 20s and 30s who have health issues such as high blood pressure, obesity and high blood glucose levels may be more likely to have problems with thinking and memory skills decades later than those without these health issues, according to a study published in the March 17, 2021, online issue of *Neurology*.

"These results are striking and suggest that early adulthood may be a critical time for the relationship between these health issues and late-life [cognitive skills](#)," said study author Kristine Yaffe, MD, of the University of California, San Francisco, and a member of the American Academy of Neurology. "It's possible that treating or modifying these health issues in early adulthood could prevent or reduce problems with thinking skills in later life."

For the study, the researchers pooled the results of four studies with a total of 15,000 people from age 18 to 95 who were followed from 10 to 30 years. They had numbers for people's body mass index (BMI), blood glucose levels, blood pressure and cholesterol taken at least three times. Thinking and memory skills were tested every one to two years.

For the study participants who were older when the study started, researchers estimated their levels for [cardiovascular risk factors](#) such as blood pressure and BMI when they were younger. Then the researchers looked to see whether cardiovascular problems in early adulthood, middle age and late life were associated with greater decline on late-life scores on the thinking and memory tests.

High BMI, [high blood pressure](#) and high [blood glucose levels](#) at each time period were associated with greater decline in scores of thinking skills in late life. Having these health issues in early adulthood was associated with the greatest change in thinking skills, or a doubling of the average rate of decline over 10 years. The results remained after researchers adjusted for other factors that could affect thinking skills, such as education level, age and sex.

Having high total cholesterol at any [time period](#) was not associated with greater decline in thinking skills.

People who had a BMI higher than 30, which is considered obese, in their 20s and 30s had scores on thinking tests that were about three to four points worse over a 10-year period than people who had a BMI in the normal range. This was twice the rate of cognitive decline.

The results were similar for people whose systolic [blood pressure](#), or the upper number in a reading, was higher than 140 mmHg in their 20s and 30s. Few people had [high blood glucose levels](#) in their 20s and 30s, but those who did had even greater cognitive decline, with scores decreasing by nine to 10 points.

Yaffe said, "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. The impact of reducing these risk factors could

be substantial."

Yaffe noted that the study does not show a cause-and-effect relationship between the [health issues](#) and late-life problems with thinking skills; it only shows an association.

A limitation of the study was that researchers estimated levels of cardiovascular risk factors at earlier ages for some of the study participants who were older when the study started, so the estimates may not be accurate.

Provided by American Academy of Neurology

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