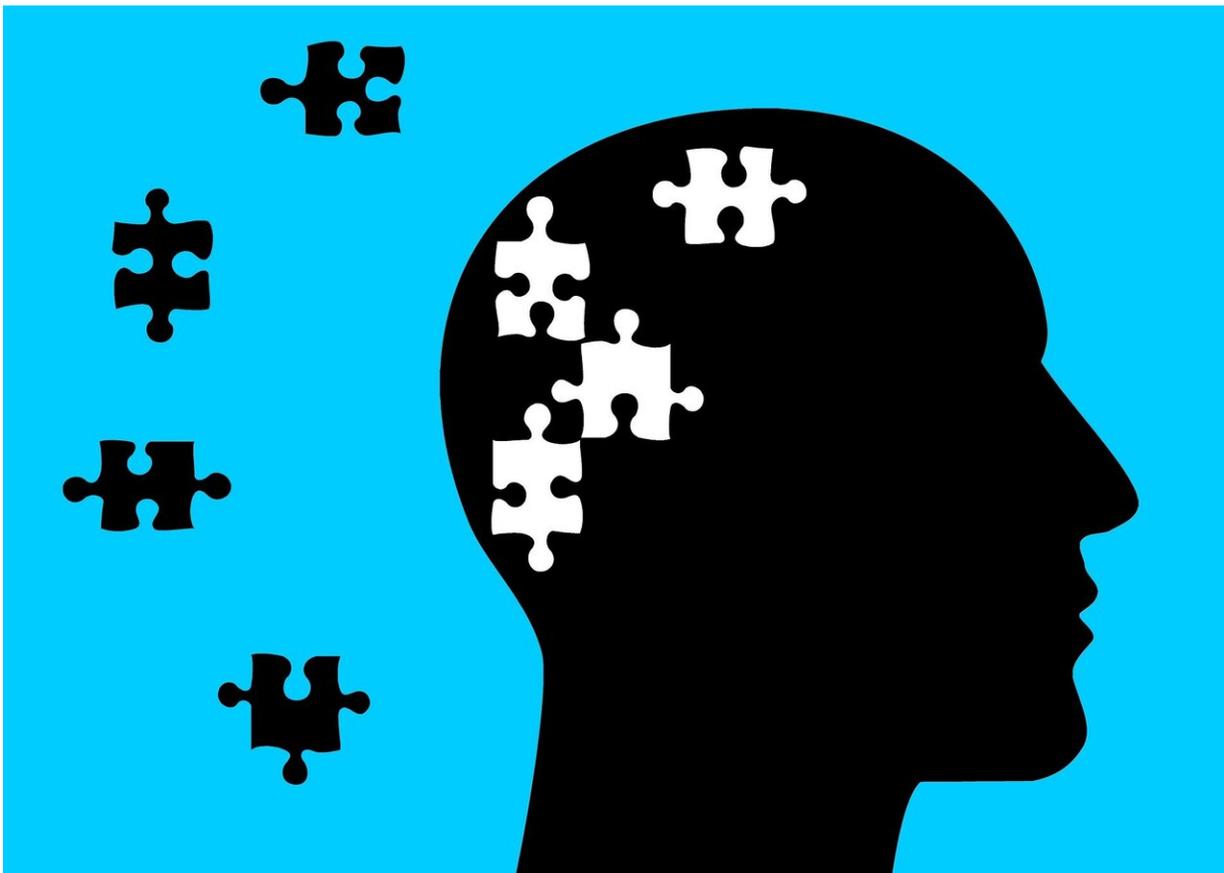


# Obesity and cardiovascular factors combine to cause cognitive decline in Latinos

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Obesity is linked to several cardiometabolic abnormalities, such as high blood sugar and hypertension, which are considered to be risk factors for

Alzheimer's disease. Nearly 45 percent of Latino adults are obese, according to data from the U.S. Department of Health and Human Services' Office of Minority Health.

In a new study, to be published August 3, 2021 in the print issue of the *Journal of Alzheimer's Disease*, researchers at University of California San Diego School of Medicine, with colleagues elsewhere, report that obesity alone is not associated with [cognitive decline](#) among Latinos.

Researchers examined data from more than 6,000 participants enrolled in the Study of Latinos-Investigation of Neurocognitive Aging (SOL-INCA). Participants were ethnically diverse, including Central Americans, Cubans, Dominicans, Mexicans, Puerto Ricans and South Americans, residing in one of four U.S. cities: San Diego, New York City, Miami and Chicago.

For SOL-INCA, participants completed a range of cognitive exams at two time points, seven years apart on average. Additionally, they underwent clinical testing to assess obesity and cardiometabolic abnormality, defined as having two or more of the following conditions: hypertension ([high blood pressure](#)), hyperglycemia ([high blood sugar](#)), high triglycerides and low "good" cholesterol (high-density lipoprotein).

After accounting for factors such as age, gender, education and [depressive symptoms](#), the researchers found that obesity alone did not predict how well someone performed on cognitive testing seven years later nor the extent of cognitive decline across that time period.

Instead, said first author Ariana M. Stickel, Ph.D., a postdoctoral scholar in the Department of Neurosciences at UC San Diego School of Medicine, cardiometabolic abnormality was more strongly associated with cognitive function and decline. Individuals with obesity and cardiometabolic abnormality had much lower performance results on

testing and greater cognitive decline than obese peers who did not present with cardiometabolic abnormality.

"These data clearly suggest that individuals with obesity take a big hit to their cognition when other [risk factors](#), such as diabetes and high cholesterol, are present," said Stickel.

"Obesity/fat stigma tends to put a hyper-focus on a number on the scale, sometimes at the expense of other health goals. If maintaining a specific weight is difficult, preventing or managing cardiometabolic abnormalities is just as important, if not more important from a cognitive health standpoint."

Stickel said developing new strategies for improving cardiometabolic health are essential, regardless of whether someone is obese.

Moving forward, the authors want to investigate the relationships between obesity, cardiometabolic risk and cognition in a more dynamic way.

"Weight can fluctuate in later life, and we sometimes see sharp declines in weight in Alzheimer's disease. However, this pattern has yet to be well-characterized in a diverse Latino cohort," said senior author Hector M. González, Ph.D., professor in the Department of Neurosciences at UC San Diego School of Medicine.

In the published study, González and colleagues looked at individuals 50 to 86 years of age, but they were unable to assess age-of-onset or duration of obesity and/or cardiometabolic abnormality.

"Unfortunately, obesity and subsequent cardiometabolic abnormalities are seen at younger ages, and Latinos have the highest rates of childhood obesity in the United States. It is unclear if and how this impacts

cognition, job performance and the workforce as a whole," González said.

"Health care workers and researchers need to invest more time into developing culturally appropriate interventions to tackle [obesity](#) and cardiometabolic abnormalities among Latinos of all ages."

**More information:** Ariana M. Stickel et al, Central Obesity, Cardiometabolic Risk, and Cognitive Change in the Study of Latinos: Investigation of Neurocognitive Aging, *Journal of Alzheimer's Disease* (2021). [DOI: 10.3233/JAD-210314](https://doi.org/10.3233/JAD-210314)

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