Obese at 50? Midlife weight may affect when Alzheimer's hits

September 1 2015, byLauran Neergaard

This is an image of a weight scale. Credit: CDC/Debora Cartagena

One more reason to watch the waistline: New research says people's weight in middle age may influence not just whether they go on to develop Alzheimer's disease, but when.

Obesity in midlife has long been suspected of increasing the risk of Alzheimer's. Researchers at the National Institutes of Health took a

closer look and reported Tuesday that being overweight or obese at age 50 may affect the age, years later, when Alzheimer's strikes. Among those who eventually got sick, more midlife pounds meant an earlier onset of disease.

It will take larger studies to prove if the flip side is true—that keeping trim during middle age might stall later-in-life Alzheimer's. But it probably won't hurt.

"Maintaining a healthy BMI at midlife is likely to have long-lasting protective effects," said Dr. Madhav Thambisetty of NIH's National Institute on Aging, who led the study reported in the journal *Molecular Psychiatry*.

About 5 million people in the U.S. are living with Alzheimer's, a number expected to more than double by 2050, barring a medical breakthrough, as the population ages.

Alzheimer's starts quietly ravaging the brain more than a decade before symptoms appear. With a cure so far elusive, researchers are hunting ways to at least delay the disease, and lifestyle changes are among the possible options.

To explore obesity's effects, Thambisetty's team turned to the Baltimore Longitudinal Study of Aging, one of the longest-running projects to track what happens to healthy people as they get older. They checked the records of nearly 1,400 participants who had undergone regular cognitive testing every year or two for about 14 years; 142 of them developed Alzheimer's.

The researchers checked how much those Alzheimer's patients weighed when they were 50 and still cognitively healthy. They tracked BMI, or body mass index, a measure of weight to height. Every step up on the

BMI chart predicted that when Alzheimer's eventually struck, it would be 6½ months sooner.

In other words, among this group of Alzheimer's patients, someone who had been obese—a BMI of 30—during middle age on average had their dementia strike about a year earlier than someone whose midlife BMI was 28, in the overweight range, Thambisetty explained.

The threshold for being overweight is a BMI of 25.

The Alzheimer's study didn't track whether the patients' BMI fluctuated before or after age 50. There's no way to know if losing pounds after that age made a difference in dementia risk, although a healthy weight is recommended for many other reasons.

Some of the Baltimore Longitudinal study participants underwent brain scans during life and autopsies at death. Those tests found people with higher midlife BMIs also had more of the brain-clogging hallmarks of Alzheimer's years later, even if they didn't develop dementia.

Tuesday's study adds to previous research linking midlife obesity to a risk of Alzheimer's, but it's the first to also find those brain changes, a clue important to examine further, said Heather Snyder of the Alzheimer's Association, who wasn't involved in the work.

Meanwhile, the Alzheimer's group has long recommended a healthy weight: "What's good for your heart is good for your brain," Snyder noted.

More information: *Molecular Psychiatry*, nature.com/articles/doi:10.1038/mp.2015.129