

# Mid-life obesity may raise dementia risk

## Overweight women especially vulnerable, researchers find

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LONDON - The most convincing research so far suggests that being fat in your 40s might raise your risk of developing dementia later in life.

In a study that followed more than 10,000 Californians for almost 30 years, researchers found that the fatter people were, the greater their risk for Alzheimer's disease or other forms of dementia. The results were published online Friday by the British Medical Journal.

"This adds another major reason for concern about the obesity problem and it now unfolds yet another area where ... we have to say, 'for God's sake, we better get cracking,'" said Philip James, an obesity expert who was not connected with the research and who heads the International Obesity Task Force.

The study data showed that roughly 7 out of 100 normal-weight people developed dementia. Among overweight people, the risk was almost 8 out of 100; and for obese people, it was 9 out of 100.

This latest research comes amid questioning and confusion in the United States over the dangers of being overweight. Last week, the U.S. Centers for Disease Control said a new analysis showed that being too fat caused far fewer deaths than previous government estimates. The announcement led to attacks by critics and restaurant-funded groups who say the threat of fat has been hyped by the U.S. officials.

Funded by the U.S. National Institutes of Health, the California study was conducted by the Kaiser Permanente Medical Foundation. The project followed 10,276 people, in their early to mid-40s, for an average of 27 years. They had detailed health checkups from the mid-1960s to early 1970s.

Between 1994 and 2003, dementia was diagnosed in 713, or about 7 percent, of the study volunteers. The scientists examined links between dementia and obesity using two different measurements — body-mass index and the thickness of skin folds under the shoulder blades and under the arm.

Adjusting for conditions such as diabetes, heart disease and other factors, the study found a higher risk of dementia for heavy people. Using the body-mass index, which measures height and weight to classify how fat people are, obese people were 74 percent more likely to develop mind-robbing dementia than normal weight people. Overweight people were 35 percent more likely to develop it.

### **Effect worse for women**

The effect was more profound for women than men. Obese women were twice as likely as women of normal weight to develop Alzheimer's disease or other types of dementia, while for men the risk increased by 30 percent.

However, when the researchers used skin-fold thickness, instead of the body-mass index, to measure obesity, there was no difference between the men and women; both were up to 70 percent more likely to develop dementia if they had a thick fold between the tweezers than if they had a thin fold of skin on the test. And the thicker the skin fold, the higher the chance of later dementia, the study found.

Perhaps the most impressive aspect of the study, according to James, is that the researchers eliminated the influence of heart disease, diabetes and other conditions that might be the real culprits in dementia.

"We really adjusted for everything under the sun that is related to dementia. We brought in stroke, high cholesterol, hypertension, diabetes, heart disease — everything that has been implicated — and yet we still found this effect," said the study's leader, Dr. Rachel Whitmer, gerontological epidemiologist at the Kaiser Permanente Medical Foundation. "That suggests that there's another pathway — it's not just that being overweight raises the risk of heart disease and diabetes and that's why these people get dementia."

**Reason for increased risk unclear**

The study was not able to explain how obesity might increase the risk of dementia, but does propose several theories.

One is that fat cells are known to produce harmful, inflammatory chemicals, and there is evidence that these may cross into the brain.

James suggested a dietary lack of the right kinds of fatty acids, such as those found in fish, might also be a factor.

"It's been shown that the Western societies are short of fatty acids of this type," he said, adding that obese people "will be very deficient in these long-chain essential fats, which are known to be fundamental for brain development."

Scientists are studying whether fish oil supplements can prevent dementia.

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