

Consumer Health Journal

[CHJ Home](#)
[About Us](#)
[Archives](#)
[Subscribe](#)
[Writers](#)
[Search CHJ](#)

Dementia Risk Drops with Weight and Exercise, Research Shows

By ALISON STEWART

Published: June 2006

Increasing evidence suggests the risk of developing dementia later in life decreases with exercise, and increases with obesity. The winter issue of *Consumer Health Journal* featured a study analysis on middle-age obesity and dementia, which showed a link between the two. More recently, two additional studies link exercise to a decrease in risk.

"Dementia is linked to obesity and lack of exercise because heart and head are related," said Debbie Mandel, New York fitness speaker and author of the book, *Changing Habits: The Caregivers' Total Workout*.

Exercise

The first study, published in the January issue of the *Annals of Internal Medicine*, found seniors who exercised were less likely have dementia ([Source](#), "Exercise Is Associated with Reduced Risk for Incident Dementia among Persons 65 Years of Age and Older," January 2006, *AIM*).

The study began with 1,740 people older than 65, without dementia. The group was followed for six years, at which point 158 had developed the problem. For those who exercised three or more times each week, the risk was 13 in 1,000. For those who did not, it was 19 in 1,000. The scientists adjusted their data for age and gender, and found the overall risk for the exercisers was 62 percent that of those who did not exercise as frequently. This finding was significant¹ ([Source](#), *AIM*).

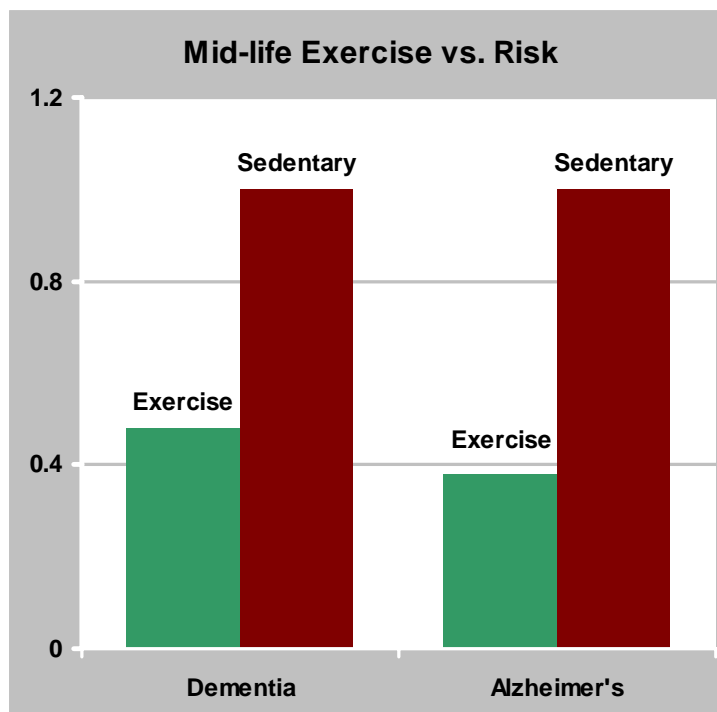
"These results suggest that regular exercise is associated with a delay in onset of dementia and Alzheimer disease, further supporting its value for elderly persons," wrote lead author Eric Larson.

The second study supports this by showing decreased risk of dementia for those who exercised at middle age. Published in the November, 2005 issue of *Lancet Neurology*, this study followed 1,449 people, aged 65-79 in 1998, initially surveyed in the 1970s and '80s. In 1998, 117 had dementia and 76 had Alzheimer's disease ([Source](#), "Leisure-time Physical Activity at Midlife and the Risk of Dementia and Alzheimer's Disease, November 2005, *LN*).

The data showed for those exercising at least twice a week at midlife, the risk of dementia was 48 percent that of non-exercisers. For AD, it was 38 percent. Both of these findings were significant¹, even after adjusting for variables like age, gender, education, health problems, and smoking ([Source](#), *LN*).

As per why exercise could affect the risk of dementia, Mandel suggested inflammation.

"Exercise gets rid of cortisol, the stress hormone that puts fat around the



middle and inflames bodily processes causing an inflammatory response in the brain," she said.

Kevin Fleming, a clinical neuropsychologist in Wyoming, cautioned interpreting study results too literally, however.

"Though there is definitely a link between exercise and lowering of risk for dementia, one needs to remember that this research is all correlational², which limits cause and effect," he said. "In fact, new research trends are pointing to evidence for other mediating variables like more education in certain subjects tested, social interaction during activity, or even variety of exercise (vs. intensity) as predictive factors."

Obesity

Similar to sedentary habits, being overweight at middle age may increase one's risk of developing dementia, according to a May 2005 study published in the *British Medical Journal* ([Source, BMJ](#)). "Obesity in Middle Age and Future Risk of Dementia: A 27-Year Longitudinal Population Based Study," May 2005, *BMJ*.

Middle-age obesity was associated with a 74 percent greater risk of dementia diagnosis, and middle-age overweight with a 35 percent greater risk, compared with those of normal weight. Both of these findings were significant¹ ([Source, BMJ](#)).

"The prevalence of a subsequent diagnosis of dementia was significantly¹ higher for those who were obese or overweight at mid-life," lead author Rachel Whitmer wrote.

Specifically, researchers studied a group of 10,276 adults in northern California. Aged 40-45 during their initial exams, they underwent periodic health checks between 1964 and 1973. Information was collected on height and weight, upper-arm and side skin fold thickness, medical history and demographics ([Source, BMJ](#)).

The scientists then measured dementia diagnosis in the same group, from 1994 to 2003. Researchers also catalogued heart disease, hypertension, stroke, high blood fat content, and diabetes, and adjusted their data to try to subtract the effects of those illnesses ([Source, BMJ](#)).

Of the participants, 713 were diagnosed with dementia (6.9 percent), and the likelihood of diagnosis was notably higher for those above their recommended weight ([Source, BMJ](#)).

Mandel suggested one possibility for why weight could be involved. "Cholesterol deposits impede cardiovascular circulation, which affects the brain," she said.

Being underweight was not associated with an increased risk of dementia.

1. "Statistical significance" refers to the likelihood that a study result was due to chance. The common number is 5 percent, or 95 percent certainty that results were due to the factor being studied, rather than chance ([Source, EPA](#)). In other words, out of 20 statistically significant study results, one is actually just due to luck.

2. "Correlational" simply means the study results showed a relationship between two items. For example, exercise was correlated (associated) with a decreased risk of developing dementia. However, that doesn't necessarily mean that exercise was directly related — it could be, for example, that those who exercise are also more likely to eat lots of bananas, or to read novels. Perhaps it is the bananas or the novels that actually decrease the dementia risk. In a correlational study, it is difficult to control for factors like bananas and reading.

CHJ Research Notes

There could be many things at work here: first, perhaps obesity is directly linked with dementia. Circulating fat could adversely affect the brain, in a manner similar to artery clogs. Whitmer did not respond to queries on this, though the study discussion does address the possibility:

"Perhaps adiposity has a direct effect on neuronal degradation," Whitmer wrote.

More abstract, perhaps our bodies are designed, big picture, to wither sooner if they feel they're not being used — it could be nature's way of preserving resources for whoever appears the most useful. If this is the case, activity could signal the body to preserve itself, while inactivity could communicate the reverse.

To comment on this article, contact astewart@consumerhealthjournal.com

[CHJ Home](#)

[About Us](#)

[Archives](#)

[Subscribe](#)

[Writers](#)

[Search CHJ](#)