



## Exercise May Cut Risk of Dementia

### Study Shows Physical Activity in Middle Age Has Brain Benefits Years in the Future

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June 4, 2008 (Indianapolis) -- Exercising in middle age may help ward off dementia and Alzheimer's disease decades later.

In a study of more than 1,400 adults, those who were physically active in their free time during middle age were 52% less likely to develop dementia 21 years later than their sedentary counterparts. Their chance of developing Alzheimer's disease was slashed even more, by 62%.

These patterns were even stronger in people with the ApoE e4 gene, which is associated with higher risk of developing Alzheimer's disease.

"By being physically active in midlife, people who carry the ApoE e4 gene can lower their risk of Alzheimer's to the same level as someone not carrying the gene," says researcher Suvi Rovio, MSc, of the Karolinska Institute in Stockholm, Sweden.

But she's not talking about taking a leisurely stroll around the block now and then. Rovio tells WebMD that the study participants who gained benefit worked out for 20 to 30 minutes, two or three times a week, "fairly vigorously -- enough to make them sweat and feel out of breath."

But Maria Carrillo, PhD, director of medical scientific relations at the Alzheimer's Association, says there's growing evidence that physical exercise "does not have to be strenuous or even require a major time commitment. It is most effective when done regularly, and in combination with a brain-healthy diet, mental activity, and social interaction.

"Physical activities that also involve mental activity -- plotting your route, observing traffic signals, making choices -- provide additional value for brain health. And doing these activities with a companion offers the added benefit of social interaction," Carrillo tells WebMD.

#### Work-Related vs. Leisure-Time Exercise

The new analysis comes from the Cardiovascular Risk Factors, Aging, and Incidence of Dementia (CAIDE) project, which involved 1,449 men and women in Finland. When they joined the study in middle age, participants filled out questionnaires that asked about their diet and work-related and leisure-time physical activity. Work-related physical activity, such as heavy lifting, didn't have the same protective effect as leisure-time exercise. "There was some reduced risk of dementia associated with

occupational activities," but the findings could have been due to chance, Rovio says.

The findings were presented at the annual meeting of the American College of Sports Medicine.

Carrillo says exercise provides a host of brain benefits. "We know that physical exercise is essential for maintaining good blood flow to the brain as well as to encourage the development of new brain cells," she says. "It also can significantly reduce the risk of heart attack , stroke , and diabetes , and thereby protect against those risk factors for Alzheimer's and other dementias."

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SOURCES:55th American College of Sports Medicine Annual Meeting, Indianapolis, May 28-31, 2008.Suvi Rovio, MSc, Karolinska Institute, Stockholm, Sweden.Maria Carrillo, PhD, director of medical scientific relations, Alzheimer's Association.

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