

Physically fit women nearly 90 percent less likely to develop dementia

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Women with high physical fitness at middle age were nearly 90 percent less likely to develop dementia decades later, compared to women who were moderately fit, according to a study published the March 14, 2018, online issue of *Neurology*, the medical journal of the American Academy of Neurology. The study measured the women's cardiovascular fitness based on an exercise test.

When the highly fit women did develop [dementia](#), they developed the disease an average of 11 years later than women who were moderately fit, or at age 90 instead of age 79.

"These findings are exciting because it's possible that improving people's [cardiovascular fitness](#) in [middle age](#) could delay or even prevent them from developing dementia," said study author Helena Hörder, Ph.D., of the University of Gothenburg in Gothenburg, Sweden. "However, this study does not show cause and effect between cardiovascular fitness and dementia, it only shows an association. More research is needed to see if improved fitness could have a positive effect on the risk of dementia and also to look at when during a lifetime a high

fitness level is most important."

For the study, 191 women with an average age of 50 took a bicycle [exercise test](#) until they were exhausted to measure their peak cardiovascular capacity. The average peak workload was measured at 103 watts. A total of 40 women met the criteria for a high fitness level, or 120 watts or higher. A total of 92 women were in the medium fitness category; and 59 women were in the low fitness category, defined as a peak workload of 80 watts or less, or having their exercise tests stopped because of high blood pressure, chest pain or other cardiovascular problems.

Over the next 44 years, the women were tested for dementia six times. During that time, 44 of the women developed dementia. Five percent of the highly fit women developed dementia, compared to 25 percent of moderately fit women and 32 percent of the women with low fitness. The highly fit women were 88 percent less likely to develop dementia than the moderately fit women.

Among the women who had to stop the exercise test due to problems, 45 percent developed dementia decades later.

"This indicates that negative cardiovascular processes may be happening in midlife that could increase the risk of dementia much later in life," Hörder said.

Limitations of the study include the relatively small number of women involved, all of whom were from Sweden, so the results may not be applicable to other populations, Hörder said. Also, the [women's](#) fitness level was measured only once, so any changes in [fitness](#) over time were not captured.

Provided by American Academy of Neurology

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