



Physical Fitness Tied to a Nearly 90% Reduction in Dementia Risk

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A high level of cardiovascular physical fitness in middle-aged women is associated with close to a 90% reduction in dementia risk in later life, results of a longitudinal study show.

Investigators followed a cohort of women for up to 44 years and found that compared with women who were moderately fit in midlife, those with high fitness levels had an 88% lower risk of developing dementia.

In addition, 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.

"I was surprised that the findings were so strong," study author Ingmar Skoog, MD, from the University of Gothenburg in Sweden, told *Medscape Medical News*.

"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," lead investigator, Helena Hörder, PhD, said in a statement.

The study was [published online](#) March 14 in *Neurology*.

Delayed Onset

Systematic reviews and meta-analyses of observational studies suggest a consistent link between physical activity and preserved cognitive function and decreased dementia risk. However, the investigators note these studies are limited by self-reported physical activity with no objective assessment of physical fitness.

"Thus, it remains unclear whether the association between physical activity and dementia is mediated by social and cognitive stimulation rather than by level of physical fitness," they write.

Furthermore, most studies are conducted in people over age 60 at baseline and have a mean follow-up of 3 to 7 years.

Previous research includes a study that reported high midlife fitness on a maximal treadmill test was associated with a lower risk for dementia over a mean follow-up of 24 years (*Ann Intern Med.* [2013;158:162-168](#)).

In another study among 18-year-old men in Sweden, low cardiovascular fitness on a bicycle ergometer test was associated with onset of dementia before age 60 years (*Brain.* [2014;137:1514-1523](#)).

"This is interesting because the etiology of early-onset dementia is supposed to have strong genetic components," the researchers note. They also cited a population-based study in Finland showing that poor self-rated fitness in middle to late life was linked to increased risk for dementia over 25 years (*J Intern Med.* [2014;276:296-307](#)).

To investigate whether greater cardiovascular fitness in midlife is associated with decreased dementia risk, the investigators measured maximal cardiovascular fitness of 191 participants (average age of 50 years) in a subsample of the Prospective Study of Women study, which began in 1968.