

Exercise may outperform puzzles in preventing brain shrinkage

Brain shrinkage has been linked to Alzheimer's disease through research that shows the brain begins to shrink years before symptoms of the devastating disease appear.

But, a new study finds exercise may beat brain-sharpening activities like puzzles when it comes to preventing brain shrinkage.

Researchers at the University of Edinburgh in Scotland looked at medical records of 638 Scots who were born in 1936. All were given MRI scans at 73-years-old to measure the volume of their brains.

- Even high normal blood sugar levels may induce brain shrinkage
- Alzheimer's brain plaques prevented by lifetime of puzzles, study suggests

Participants were asked details about their exercise habits -- ranging from light household chores to heavy exercise or competitive sports -- and were also asked about participation in social or mentally-stimulating activities. They were followed-up with three years later with another MRI scan.

The researchers found those who engaged in more physical activity experienced significantly less brain shrinkage than those who reported minimal exercise. Even walking several times each week was tied to less brain shrinkage, according to the researchers.

"On the other hand, our study showed no real benefit to participating in mentally and socially stimulating activities on brain size, as seen on MRI scans, over the three-year time frame," study author Dr. Alan J. Gow, PhD, a senior research fellow in psychology at the University of Edinburgh, said in a press release. The study was published in the Oct. 23 issue of *Neurology*.

Previous research has suggested keeping your brain active by reading, writing, completing crossword puzzles or playing challenging games may prevent development of brain plaques indicative of Alzheimer's.

"This research re-emphasizes that it really is never too late to benefit from exercise, so whether it's a brisk walk to the shops, gardening or competing in a fun run, it is crucial that -- those of us who can -- get active as we grow older," Dr. Prof James Goodwin, head of research at Age UK, the charity that helped fund the research, told the BBC.

A study in April found that even adults who are over 80 may be less likely to experience cognitive decline associated with Alzheimer's disease if they engaged in light physical activities like cooking and cleaning.

Besides exercise, earlier research suggests there are seven "modifiable" risk factors for Alzheimer's that patients should keep in mind to stave off dementia, including avoiding smoking and eating healthy.