

Exercise also trains the brain

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We know exercise has a positive effect on the body, but more and more evidence shows that regular exercise may be good for the mind too. The latest information comes by way of two studies released this week in Archives of Neurology that show the possible benefits of physical activity on cognitive function.

In one paper, researchers found that six months of high-intensity aerobic exercise was linked with improved cognitive function. The small study included 33 people, about half women, average age 70. The participants had mild cognitive impairment, described as a condition between the normal cognitive changes that occur with aging and dementia. They were divided into two groups -- an exercise group that did 45 to 60 minutes of vigorous aerobic activity four days a week for six months and a control group that did stretching and kept their heart rates much lower.

The subjects were given various tests before, during and after the study, including a fitness assessment, body-fat analysis, blood tests for metabolic markers and cognitive evaluations.

After the six months, several cognitive functions improved, including multitasking, cognitive flexibility, information processing efficiency and selective attention. However, the changes were seen more substantially in women than in men, although both showed improvements in cardiorespiratory fitness. Researchers speculate that the differences might be due to the fact that the genders differ in how their bodies use and produce glucose, insulin and cortisol.

In a second study, the emphasis was on moderate exercise. Researchers examined data on 1,324 people who were part of the Mayo Clinic Study of Aging who did not have dementia. The participants reported their frequency and intensity of exercise in a questionnaire, and a panel of experts determined who had normal cognition (1,126 people) and who had mild cognitive impairment (198 people).

They determined that engaging in moderate exercise in midlife was linked with a 39% reduction in the odds of developing mild cognitive impairment. Moderate exercise later

in life was associated with a 32% decrease. Light exercise (slow dancing, golfing using a cart) and vigorous exercise (jogging, skiing) did not show the same connection.

Researchers speculate that the positive effects could come from improved blood flow to the brain, less risk of cardiovascular and cerebrovascular disease and other factors. Then again, it could be that exercise usually brings with it an overall healthy lifestyle, including eating a good diet and getting regular checkups.