

# Moderate to intense exercise may protect the brain

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Older people who regularly exercise at a moderate to intense level may be less likely to develop the small brain lesions, sometimes referred to as "silent strokes," that are the first sign of cerebrovascular disease, according to a new study published in the June 8, 2011, online issue of *Neurology*.

"These 'silent strokes' are more significant than the name implies, because they have been associated with an increased risk of falls and impaired mobility, [memory problems](#) and even dementia, as well as stroke," said study author Joshua Z. Willey, MD, MS, of Columbia University in New York and a member of the American Academy of Neurology. "Encouraging older people to take part in moderate to [intense exercise](#) may be an important strategy for keeping their brains healthy."

The study involved 1,238 people who had never had a stroke. Participants completed a questionnaire about how often and how intensely they exercised at the beginning of the study and then had MRI scans of their brains an average of six years later, when they were an average of 70 years old.

A total of 43 percent of the participants reported that they had no regular exercise; 36 percent engaged in regular [light exercise](#), such as golf, walking, bowling or dancing; and 21 percent engaged in regular moderate to intense exercise, such as hiking, tennis, swimming, biking, jogging or racquetball.

The brain scans showed that 197 of the participants, or 16 percent, had small [brain lesions](#), or infarcts, called [silent strokes](#). People who engaged in moderate to intense exercise were 40 percent less likely to have the silent strokes than people who did no regular exercise. The results remained the same after the researchers took into account other vascular risk factors such as [high blood pressure](#), [high cholesterol](#) and smoking. There was no difference between those who engaged in light exercise and those who did not exercise.

"Of course, light exercise has many other beneficial effects, and these results should not discourage people from doing light exercise," Willey said.

The study also showed that the benefit of moderate to intense exercise on brain health was not apparent for people with Medicaid or no health insurance. People who exercised regularly at a moderate to intense level who had Medicaid or no health insurance were no less likely to have silent infarcts than people who did no regular exercise. "It may be that the overall life difficulties for people with no insurance or on Medicaid lessens the protective effect of regular exercise," Willey said.

Provided by American Academy of Neurology

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