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## Can Exercise Boost Your Brainpower?

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### A new study says exercise improves cognitive ability.

Folk wisdom and modern science hold that [physical exercise](#) is good for the mind and body.

For the doubters, new [studies](#) uphold the long-held conclusion: Exercise does, indeed, increase brainpower.

"Most notably in children, what we see is that they perform better on academic achievement tests following single bouts of exercise," Charles Hillman, a professor at the University of Illinois who has studied the issue for several years, told "Good Morning America."

Hillman's [latest study](#), "Cognition Following Acute Aerobic Exercise," found that moderate exercise -- 30 minutes for adults and 20 minutes for children -- results in a 5 percent to 10 percent improvement in cognition.

The findings don't refer to a person's IQ or learned intelligence but to executive function, the activity that takes place in the brain's frontal lobe.

Using treadmills, brain monitors and other equipment, Hillman measured cognition before and after exercise.

Participants' performance on executive function tests improved after exercise, the study showed.

Claire Shipman, "Good Morning America's" senior national correspondent, put Hillman's findings to the test.

While connected to monitoring equipment, she hit the treadmill. After 20 minutes, her brain's processing speed had increased by about 16 milliseconds.

"It's good for attention, it's good for how fast individuals process information, and how they perform on cognitive tasks," Hillman said of the [effects of exercise on the brain](#).

### Exercise Has Long-Term Brain Benefits

The findings may have significant implications for everyday life. Just taking a brisk walk prior to, say, taking a big test or making an important speech may positively affect the outcome of the task.

Hillman's test subjects were adults and children, including 10-year-old Savannah Burkhalter.

Savannah's results improved, but she didn't notice.

"After I exercised, my feet felt a little better, but other than that, there was pretty much no difference," she said.

The study also found that the cognitive effects of exercise lasted for only a few hours, but research suggests that regular exercise could have long-term benefits, including increasing the size of the frontal lobes and, possibly, delaying the onset of Alzheimer's disease, a degenerative neurological condition that is incurable.

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