Want More Brain Power? Just Do THIS!

You're not the only one who can't find your keys. Memory decline begins early--around age 30 for most adults. That's the bad news. But the good news is that it's actually pretty easy to boost your memory and even build new brain cells. How? Exercise.

When we get our bodies moving and the sweat dripping it not only builds muscle, but also new brain cells in the part of the brain associated with memory and memory loss, according to research from Columbia University Medical Center in New York and the Salk Institute in La Jolla, California.

The study: In this study of mice and men, 11 healthy adults participated in a three-month aerobic exercise program. Each volunteer's overall fitness was assessed through measurements of oxygen volume before and after the training program. In addition, magnetic resonance imaging scans of their brains were taken before and after.

The results:

- When the mice exercised, they grew new brain cells in the dentate gyrus, a part of the brain's hippocampus that is affected in age-related memory decline.
- In humans, exercise generated blood flow to the dentate gyrus. As each person improved his or her fitness level, the MRI detected even greater blood flow.

"The remarkable similarities between the exercise-induced cerebral blood volume changes in the hippocampal formation of mice and humans suggest that the effect is mediated by similar mechanisms," wrote Dr. Scott Small, a neurologist at Columbia University Medical Center in New York, and brain expert Fred Gage of the Salk Institute in La Jolla, California in the Proceedings of the National Academy of Sciences.

That is, the researchers found the same patterns in mice and people, which suggests that human beings, just like the mice, grow new brain cells when they exercise.

This finding is significant because it was accomplished via the first-ever observation of neurogenesis, the growth of neurons, within a living brain. Using an MRI imaging technique developed at Columbia, the researchers were able to identify neurogenesis within the dentate gyrus region following exercise. Previously, researchers were only able to prove neurogenesis upon postmortem exam in animal studies. "No previous research has systematically examined the different regions of the hippocampus and identified which region is most affected by exercise," said Small.

What kind of exercise is best for improving your brain power? They're working on that. "Our next step is to identify the exercise regimen that is most beneficial to improve cognition and reduce normal memory loss, so that physicians may be able to prescribe specific types of exercise to improve memory," Small said. Want More Brain Power Do This 063012