

# Physical activity may protect your brain as you age

March 8 2022, by Leigh Beeson

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We all know we should exercise and eat healthy. But doing that isn't just good for maintaining your figure as you age.

New research from the University of Georgia shows that physical activity could help protect your [cognitive abilities](#) as you age. And it doesn't have to be [intense exercise](#) to make an impact.

"This finding isn't saying, 'If you're older, you need to go out there and start running marathons,'" said Marissa Gogniat, lead author of the study and a recent doctoral graduate in psychology from the Franklin College of Arts and Sciences. "This is saying if you get more steps, if you're moving around your environment a little bit more, that can be helpful to your [brain health](#) and keep you more independent as you age."

## **Exercise improves brain function**

Published in *Sport Sciences for Health*, the study followed 51 [older adults](#), tracking their physical activity and fitness measurements. The participants performed tests specifically designed to measure cognitive functioning and underwent MRIs to assess brain functioning.

They also wore a device that measured the intensity of the wearer's physical activity, number of steps taken and distance covered. The researchers assessed fitness through a six-minute walking test, during which participants walked as quickly as they could to cover the most distance possible within the time limit.

"We've always been told it's good to exercise, but I think this is some evidence that exercise can actually change your brain," Gogniat said. "And that impacts the way you're able to function in your daily life."

## **Brain networks improve with physical activity**

The brain is made up of a bunch of distinct networks. Those networks are in constant communication, sending information to each other.

But different parts of the brain are active at different times. The network that is active when the body is at rest, for example, flips off when a person starts trying to complete a task. At that time, another network kicks on.

While one of these networks is active, the other should be shut off. If it's not, that's a sign that a person's brain isn't functioning as well as it should be.

These networks are the key to being able to perform basic tasks in daily life, such as remembering important information and exhibiting self-control. But as people age, these tasks often become more difficult.

This study was the first to examine how these networks interact with physical activity and fitness to impact how the [brain](#) functions.

"This paper is exciting because it gives us some evidence that when people whose [brain networks](#) aren't functioning optimally engage in [physical activity](#), we see improvement in their executive function and their independence," Gogniat said. "We're not saying you need to radically change your life.

"Maybe just take the stairs on the way to work. Stand up and walk around a little bit more. That's where you get the most bang for your buck, not crazy, high-intensity exercise."

**More information:** Marissa A. Gogniat et al, Physical activity and fitness moderate the association between executive function and anti-correlated networks in the aging brain, *Sport Sciences for Health* (2022). [DOI: 10.1007/s11332-021-00887-9](https://doi.org/10.1007/s11332-021-00887-9)

Provided by University of Georgia

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