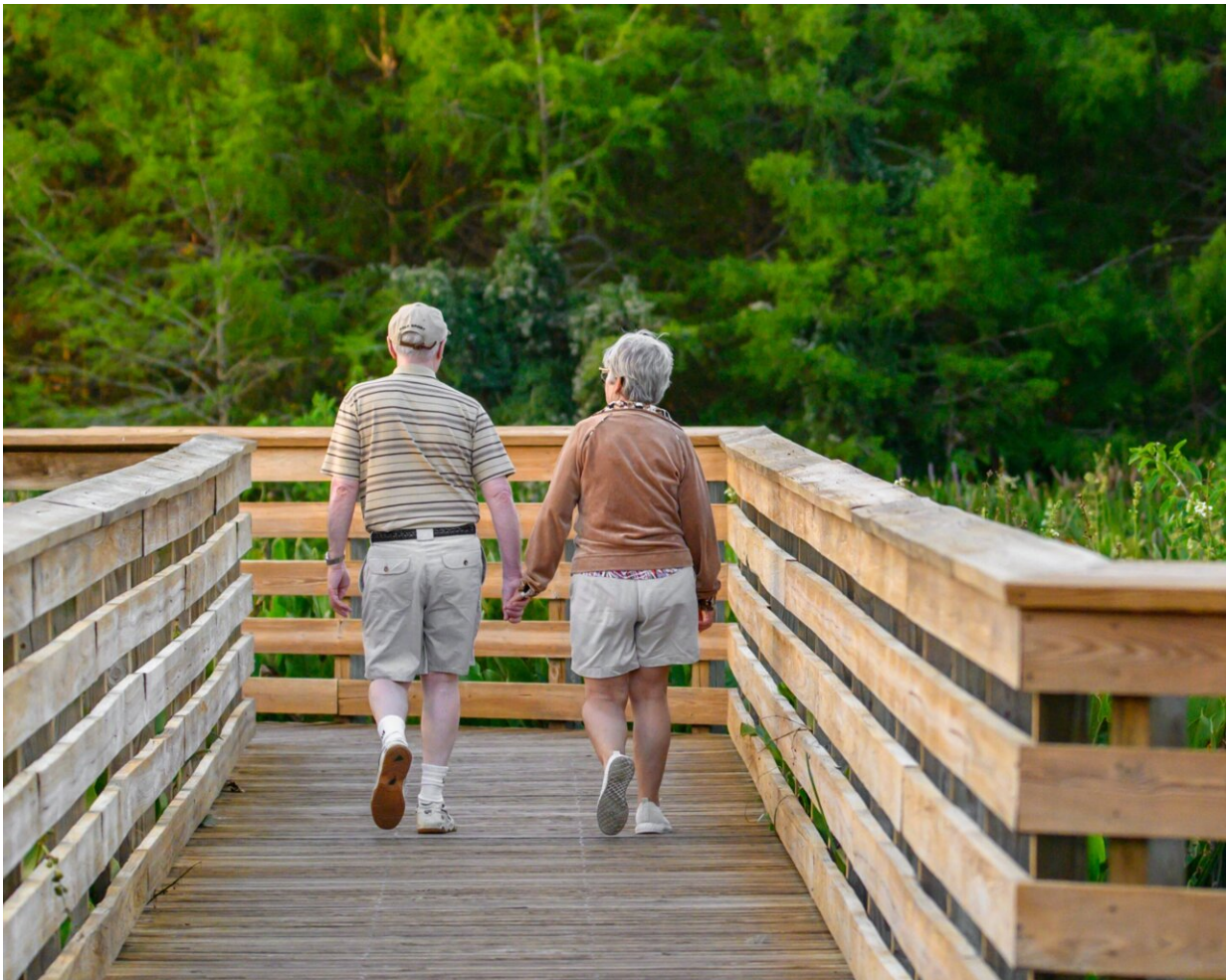


# Physical activity contributes to a healthy aging brain in poor sleepers, finds study

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Credit: Unsplash/CC0 Public Domain

Poor sleep negatively impacts memory in older adults, but a physically active lifestyle may help alleviate some of these consequences.

Researchers from Murdoch University's Center for Healthy Aging investigated two important lifestyle factors—sleep and physical activity—and their impact on brain health as we age.

They found that physical activity may compensate for some of the negative effects of [poor sleep](#) on memory and thinking skills.

Murdoch University Ph.D. candidate Kelsey Sewell, who led the study with senior authors Associate Professor Stephanie Rainey-Smith and Associate Professor Belinda Brown, assessed participants for memory and thinking skills, and the presence of a toxic brain protein called [beta-amyloid](#), which is an early marker of Alzheimer's disease.

"Our aim was to consider the combined effect of sleep and physical activity, because we know they are closely related," Sewell said.

"Our results show that in people who are less physically active, poorer sleep was associated with worse memory and thinking skills. However, in those with higher physical activity, sleep did not have a significant impact on their memory and thinking."

The study also found that sleep and physical activity may work together to influence levels of brain beta-amyloid, however further research would be required to fully understand these associations.

Sewell said that the results may be encouraging for older adults struggling to get a good night's sleep.

"Overall, our results illustrate that [physical activity](#) may compensate for some of the negative effects [poor sleep](#) has on memory and thinking

skills in [older adults](#)," she said. "However, because of the novelty of this research, further studies are needed to confirm this finding."

The paper is published in the journal *Behavioural Brain Research*.

**More information:** Kelsey R. Sewell et al, The interaction between physical activity and sleep on cognitive function and brain beta-amyloid in older adults, *Behavioural Brain Research* (2022). [DOI: 10.1016/j.bbr.2022.114108](#)

Provided by Murdoch University

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