

Study suggests hatha yoga boosts brain function in older adults

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Previous studies have shown that yoga can have immediate positive psychological effects by decreasing anxiety, depression and stress. Credit: Neha Gothe

Practicing hatha yoga three times a week for eight weeks improved sedentary older adults' performance on cognitive tasks that are relevant to everyday life, researchers report.

The findings involved 108 adults between the ages of 55 and 79 years of age, 61 of whom attended hatha yoga classes. The others met for the same number and length of sessions and engaged in stretching and toning exercises instead of yoga.

At the end of the eight weeks, the yoga group was speedier and more accurate on tests of information recall, mental flexibility and task-switching than it had been before the intervention. The stretching-and-toning group saw no significant change in [cognitive performance](#) over time. The differences seen between the groups were not the result of differences in age, gender, social status or other demographic factors, the research team reported.

Hatha yoga is an ancient spiritual practice that involves meditation and focused breathing while an individual moves through a series of stylized postures, said Neha Gothe, who led the study with University of Illinois kinesiology and community health professor Edward McAuley. Beckman Institute director Arthur Kramer also contributed to the study. Gothe is now a professor at Wayne State University.

"Hatha yoga requires focused effort in moving through the poses, controlling the body and breathing at a steady rate," Gothe said. "It is possible that this focus on one's body, mind and breath during [yoga practice](#) may have generalized to situations outside of the yoga classes, resulting in an improved ability to sustain attention."

"Participants in the yoga intervention group showed significant improvements in working memory capacity, which involves continually updating and manipulating information," McAuley said. "They were also able to perform the task at hand quickly and accurately, without getting distracted. These mental functions are relevant to our everyday functioning, as we multitask and plan our day-to-day activities."

Previous studies have found that yoga can have immediate positive psychological effects by decreasing anxiety, depression and stress, Gothe said.

"These studies suggest that yoga has an immediate quieting effect on the sympathetic nervous system and on the body's response to stress," she said. "Since we know that stress and anxiety can affect cognitive performance, the eight-week [yoga](#) intervention may have boosted participants' performance by reducing their stress."

The results of the study are only preliminary and involve a fairly short-term intervention, the researchers said. Further research is needed to confirm the results and reveal the underlying brain mechanisms at play.

More information: The team reported its findings in *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*.
biomedgerontology.oxfordjournals.org/doi/full/10.1093/geron/glu095

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