

Vibration training for multiple sclerosis

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Multiple sclerosis (MS) is a chronic neurological disease that affects the body's central nervous system. It can limit a person's mobility, impair physical and cognitive functions, and increase the risk of falling, collectively compromising quality of life.

Cognitive impairment has been particularly difficult for researchers to address, with few intervention strategies proven effective in preserving or restoring cognitive functions for people with MS.

Associate Professor Feng Yang worked with Francois Bethoux from the Cleveland Clinic Foundation and Georgia State University faculty members Pey-Shan Wen and Yichuan Zhao to study whether vibration training—an intervention used to improve physical function for people with MS—could also improve cognitive function and overall quality of life.

Vibration training requires individuals to sit or stand on a platform that vibrates at a fast pace but with a small movement for a specific amount of time.

For Yang's study, believed to be the first of its kind, 18 adults with MS completed assessments to determine their perceived disability status, cognitive function and quality of life. Then, some of the participants attended vibration training three times a week for six weeks.

The study, published in the *International Journal of MS Care*, found that the vibration training improved not only [physical abilities](#), such as increased walking speeds, but also cognitive functions, such as memory capacity and executive function.

"Despite the limitations—such as a [small sample size](#), narrow MS types and disability levels, etc. – this study suggests that a six-week [vibration](#) training course could improve cognitive functions and quality of life among people with MS," Yang and his colleagues wrote. "The goal of rehabilitation in people with MS is to decrease the impact of MS on personal activity, function and social participation to allow people with MS the highest possible independence and quality of life."

More information: Feng Yang et al, Effects of Vibration Training on Cognition and Quality of Life in People with Multiple Sclerosis, *International Journal of MS Care* (2021). [DOI: 10.7224/1537-2073.2020-095](https://doi.org/10.7224/1537-2073.2020-095)

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