

Regular Exercise Program May Stall Cognitive Decline

— Trial shows promise for people with mild cognitive impairment

by [Judy George](#), Deputy Managing Editor, MedPage Today

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Sedentary older adults with amnesic mild cognitive impairment who engaged in regular exercise for a year maintained their cognition without decline, topline data from the [EXERT](#) trial showed.

Older adults who engaged in either moderate intensity aerobic training or stretching, balance, and range-of-motion exercises for 12 months showed no change from baseline in [ADAS-Cog-Exec](#) scores, a measure of global cognitive function, reported Laura Baker, PhD, of Wake Forest University School of Medicine in Winston-Salem, North Carolina, at the 2022 [Alzheimer's Association International Conference](#).

A comparison group of similar older adults with mild cognitive impairment in an observational study -- the Alzheimer's Disease Neuroimaging Initiative ([ADNI](#)) -- who did not have the EXERT interventions showed significant cognitive decline over 12 months, Baker noted.

"An increased amount of supported exercise of at least 120 to 150 minutes a week for 12 months may slow or stall cognitive decline in previously sedentary older adults with mild cognitive impairment," she said.

EXERT is the longest-ever phase III study of exercise in older adults with mild cognitive impairment, noted Maria Carrillo, PhD, chief science officer of the Alzheimer's Association.

These topline findings are "remarkable and encouraging," Carrillo said. "They suggest that regular physical activity, even modest or low exertion activity such as stretching, may protect brain cells against damage."

The EXERT trial aimed to test whether 12 months of exercise would improve or protect cognition in sedentary people with amnesic mild cognitive impairment. Participants with a mean Mini-Mental State Examination ([MMSE](#)) score of 28 and a mean Clinical Dementia Rating scale Sum of Boxes ([CDR-SB](#)) score of 1.5 were randomized to either aerobic or stretching, balance, and range-of-motion exercise.

Both the aerobic and stretching/balance groups exercised four times a week for about 30 to 40 minutes. The aerobic group exercised at a moderate intensity, achieving 70% to 85% heart rate reserve. The stretching/balance group exercised at a low intensity, maintaining heart rate reserve below 35%.

In the first 12 months of the trial, participants were supervised by a trainer at the YMCA. For the next 6 months, they continued exercising independently.

A total of 296 participants enrolled in the study. Most (57%) were women; about 87% were white and 10% were Black. Mean age was about 74, and 25% were *APOE4* carriers.

More than 31,000 exercise sessions were completed in the first 12 months. Attendance remained high throughout the study, at 81% in the aerobic exercise group and 87% in the stretching/balance group.

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Neither the aerobic group nor the stretching/balance group showed decline from baseline on the ADAS-Cog-Exec at 6 or 12 months. There were no significant treatment differences between the aerobic and stretching/balance groups on these outcomes ($P=0.29$).

In a usual-care analysis, the researchers compared EXERT participants with those from ADNI matched on demographics, baseline cognitive function, and *APOE4* status. ADNI participants showed an expected 12-month decline in ADAS-Cog-Exec scores, but the EXERT aerobic group ($P=0.012$) and EXERT stretching/balance group ($P=0.0005$) did not.

All EXERT participants received weekly socialization from the program, which may have contributed to the findings, Baker noted. What's critical is that regular exercise must be supported for people with mild cognitive impairment: it must be supervised and have a social component, she added.

[Judy George](#) covers neurology and neuroscience news for MedPage Today, writing about brain aging, Alzheimer's, dementia, MS, rare diseases, epilepsy, autism, headache, stroke, Parkinson's, ALS, concussion, CTE, sleep, pain, and more. Follow 

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Baker disclosed no relationships with industry.

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