

# Is Aerobic Exercise The Right Prescription For Staving Off Alzheimer's?



**Researchers are prescribing exercise as if it were a drug in a study that aims to see if it can prevent Alzheimer's disease.**

"We are testing if exercise is medicine for people with a mild memory problem," says Laura Baker, principal investigator of the nationwide EXERT study and associate director of the Alzheimer's Disease Research Center at Wake Forest School of Medicine.

The study, funded by the National Institute on Aging, could help determine whether exercise can protect people from the memory and thinking problems associated with Alzheimer's.

**"The evidence in science has been building for the last 20 years to suggest that exercise at the right intensity could protect brain health as we age,"** Baker says.

But much of that evidence has come from studies that were small, ran for only a few months or relied on people's own estimates of how much they exercised.

The **EXERT study** is different. It's taking 300 people at high risk for Alzheimer's and randomly assigning them to one of two groups for 18 months. Half the participants do aerobic exercise, like running on a treadmill. The other half do stretching and flexibility exercises for comparison.

The approach is a lot like the one pharmaceutical companies use to test new drugs. Except in this study, participants go to the local YMCA to take their medicine.

To qualify for the EXERT study, participants must be between 65 and 89 and not engage in regular exercise. They also must have mild cognitive impairment, a type of memory loss that often precedes Alzheimer's.

"My memory isn't what it's supposed to be," says Richard, 75, who enrolled in the study six months ago. "My pockets are always filled with notes, because that's what I do. I'm very bad with names.

We're using only Richard's first name to protect his privacy and the integrity of the study, which doesn't allow investigators to know which participants are getting which form of exercise.

Richard became a part of the EXERT study after his wife saw a flyer that arrived in the mail.

"Within minutes she's on the phone," he says. "And the next thing I know I'm being interviewed, they're taking my blood, they're wiring me up for things, and I'm in the program."

So for the past six months, Richard has been going to the Y four days a week. He takes his training sessions seriously.

"The only one I missed [is when] I had had some minor surgery," he says. As part of the study, Richard and other participants undergo tests of memory and thinking. They also have tests to monitor blood flow in the brain, brain atrophy, and levels of toxic proteins associated with Alzheimer's.

All that data will help make the study results definitive, says Howard Feldman, a professor of neuroscience at the University of California, San Diego and director of the Alzheimer's Disease Cooperative Study, a consortium that's overseeing the EXERT study.

"We will not only understand whether the intervention helps people on a clinical outcome but actually what the scientific basis is," Feldman says.

And even if the study fails to preserve memory, he says, participants are getting a benefit from it.

"You're invoking optimism, you're invoking hope, you're touching on collegiality, you're creating a peer group for people," Feldman says.

**Richard isn't sure if his memory is any better than when he started exercising. But going to the gym has changed his life, he says.**

"There's a doughnut stop across the street, which I ignore every time I come out," he says. "I used to love peanut butter filled pretzels, [but I] haven't had one in six months. And as a result I've lost 8 pounds."

It's been hard to find enough people like Richard, though. "**It turns out to be super challenging to find people with memory problems who are willing to come to the Y four times a week and commit to being in the study for 18 months,**" says Andrea LaCroix, professor and chief of epidemiology at UCSD, who has been working to recruit more participants for EXERT.

The nationwide EXERT study has enrolled about 200 people so far. But it needs 100 more.

**Caveat:** "Loss or Change Aversion Theory" states in the popular behavioral economic book, "Freakonomics", that a person's capacity for risk or change in general is proportional to our imminent sense of loss. The theory predicts you will dig in and fight harder when confronted with a loss of something you own than the promise of future benefit.

What this means for your brain health is that it is hard to motivate people to make **proactive** health changes even with statistics that clearly demonstrate that brain health can be improved by increased exercise, a Mediterranean diet and brain stimulation. However, should you experience a health set back, THEN, people will double down on developing heart healthy behaviors, going to the gym, eating low cholesterol diet and basically getting themselves moving and back out in life.

**Don't wait for a health setback, develop a brain wellness lifestyle today!**