

# Alzheimer's Self Test Works Surprisingly Well



Rachael Rettner

LiveScience Staff Writer

[LiveScience.com](#)

Tue Apr 13, 3:55 pm ET

A newly developed handwritten test designed to assess cognitive abilities in older adults could one day serve as a tool to help detect Alzheimer's disease in its early stages, new research suggests.

While previous pen-and-paper tests have been developed to help identify memory problems, most of them require a doctor to administer it. The new test, on the other hand, is self-administered.

"A lot of people, unfortunately, with cognitive issues don't tell their doctors, they hide it or they don't think it's a big problem, so they don't bring it up. And primary care doctors are so busy that they're not just going to screen someone and take 10 or 15 minutes of their time or their nurses' time to do a test," said Dr. Douglas Scharre, a neurologist at Ohio State University Medical Center, who developed the test. "So this is a way to perhaps identify people early, or make it easier to [identify people early](#) because of the self-administered nature of this test."

## Why it matters

Catching [Alzheimer's](#) early could shorten the time between when patients start to have disease symptoms and when they go to their doctor about it, which is on average three and a half years, Scharre said. Such a lag prevents patients from starting medications, which, while not a cure, work best if they are begun early. And unidentified mental impairment can lead to further health problems, such as when patients with diabetes forget to take their insulin.

However the test cannot [diagnose Alzheimer's](#) or distinguish this condition from other types of dementia. (While [dementia](#) is a symptom that means someone is not thinking well, Alzheimer's is a specific type of dementia thought to be caused by toxic proteins accumulated in specific brain areas.)

Rather, the test serves as more of a starting point for further examination.

"It's not a diagnostic test, it won't tell you what the cause of their brain problem is, but it would at least give a doctor a hint of, 'Hey maybe something's up, let me think about this more [and] let me look at this more,'" Scharre said.

## Test your brain

The self test, known as Self-Administered Geocognitive Examination or SAGE, is designed to test various parts of the [brain](#) linked to certain functions. For example, patients are asked to identify pictures to test their language skills, and perform calculations to test their math skills, both primarily carried out by the left side of the brain. Subjects also copy geometrical designs to test their right brain, and perform memory tests. The SAGE test is quite robust compared to other handwritten tests in that it measures so many different parts of the brain, Scharre said.

In a study involving 254 participants, Scharre and his colleagues compared the reliability of the SAGE test with that of other standard tests used to detect cognitive problems, such as assessment by a neuropsychologist. The results show 80 percent of those with mild thinking and memory issues can be detected by SAGE, and 95 percent of those with normal thinking abilities will have normal scores.

Other advantages of SAGE include its low price tag, costing just pennies for paper and ink, and the fact that it's completed on paper rather than on a computer, which might confuse some older adults who are not familiar with the technology.

### Don't try this at home

Like all self-administered tests, this one has its down-sides. Patients can't be timed, so their scores on SAGE aren't directly comparable to other standardized tests that are timed. And subjects could cheat by looking at calendars or clocks (items on the test) that might be in view.

And while the test is currently available for health professional to download, Scharre doesn't recommend that people take it at home. It's important to have a doctor or other healthcare personnel figure out a patient's score and interpret the results, Scharre said.

Also, patients might be embarrassed to admit they have a mental illness, and might be tempted to cheat on their own, he said.

Scharre plans to carry out more studies with his tests, specifically looking at how people's scores change over time.

The results were published in March in the journal *Alzheimer Disease and Associated Disorders*.

[10 Ways to Keep Your Mind Sharp](#)

[Top 10 Mysteries of the Mind](#)

[How to Know if You Have Alzheimer's](#)

[Original Story: Alzheimer's Self Test Works Surprisingly Well](#)

[LiveScience.com](#) chronicles the daily advances and innovations made in science and technology.

We take on the misconceptions that often pop up around scientific discoveries and deliver short, provocative explanations with a certain wit and style. Check out our science [videos](#), [Trivia & Quizzes](#) and [Top 10s](#). [Join our community](#) to debate hot-button issues like stem cells, climate change and

evolution. You can also sign up for free [newsletters](#), register for [RSS feeds](#) and get cool gadgets at the [LiveScience Store](#).

---

Copyright © 2010 Yahoo! Inc. All rights reserved. [Questions or Comments](#) [Privacy Policy](#) [About Our Ads](#) [Terms of Service](#) [Copyright/IP Policy](#)