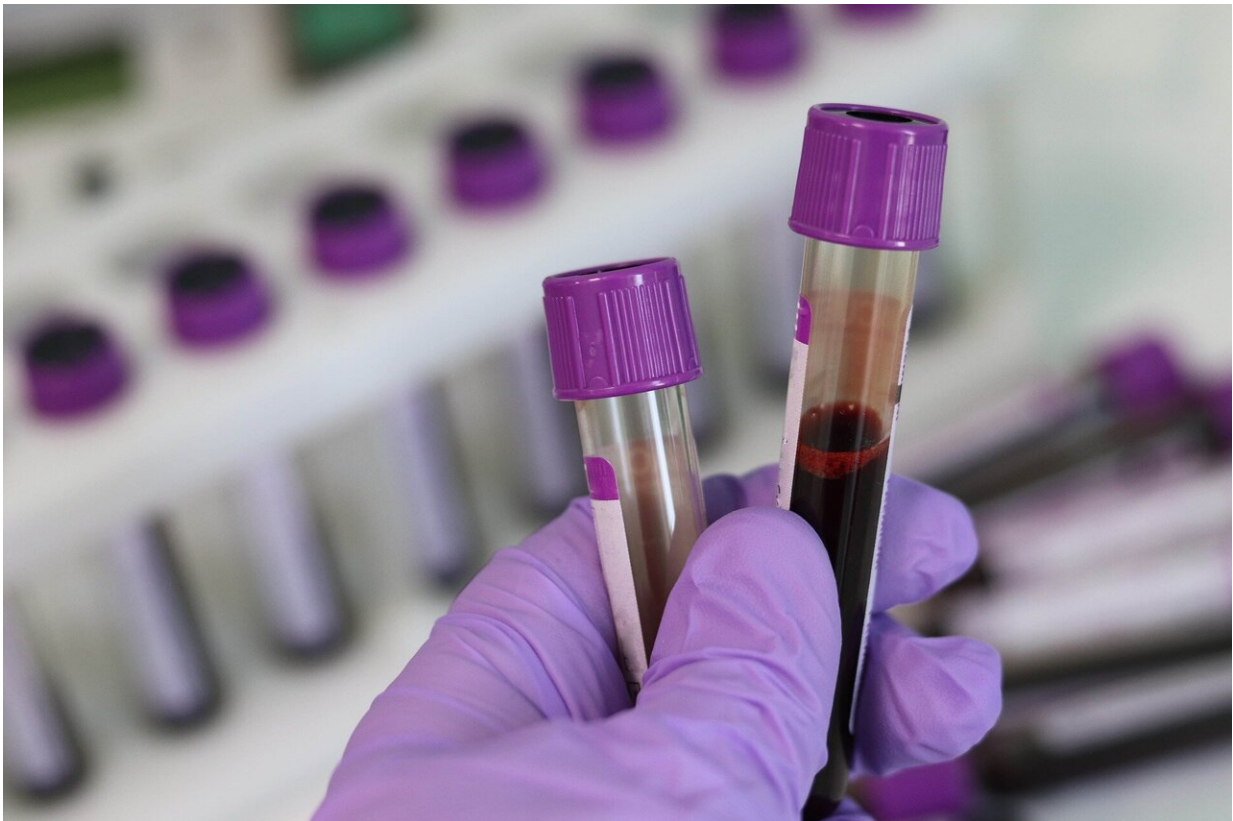


Q&A: Expert explains the reliability of Alzheimer's blood tests

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Just as your primary care physician offers routine blood tests to gauge cholesterol or glucose levels, they might soon offer a blood test to diagnose Alzheimer's disease.

Two papers presented recently at the Alzheimer's Association International Conference ([AAIC 2024](#)) add to growing evidence of the test's reliability. One study showed the diagnostic accuracy of the test in a primary care setting when compared to the gold standard of a spinal fluid test. The other showed the test was reliable for diagnosing Alzheimer's in presymptomatic stages where people don't yet have [cognitive impairment](#).

Northwestern Now recently spoke with Dr. Joshua Cahan, a Northwestern Medicine neurologist and assistant professor of neurology at Northwestern Feinberg School of Medicine who is investigating Alzheimer's prevention therapies, to find out who should take the blood test and why.

Is the Alzheimer's blood test truly reliable?

We've known they've been reliable for a few years. As time goes on, more evidence is accumulating that they are useful. The new papers presented last week and published in [JAMA Neurology](#) and [JAMA](#) suggest one biomarker, P-Tau 217, is able to [predict and diagnose the disease](#).

This biomarker is specific to Alzheimer's disease but cannot rule out other causes of cognitive decline. P-Tau 217 can also be abnormal in people without symptoms of cognitive decline. I am optimistic about the prospects of the test, but there are nuances to the interpretation that need to be worked out. Experts are still debating the exact role it will play in clinical practice.

Should I get the test if I've been feeling forgetful?

The test can't replace a thorough history and cognitive exam with a

cognitive care specialist. Now biomarker testing is only recommended by the Alzheimer's Association for people with symptoms of cognitive impairment.

There are several caveats to getting this test in a primary care setting. Insurance is not typically covering these blood tests. Also, the results can be borderline, and a primary care doctor may not know how to interpret the information. Given the weight of the diagnosis, a primary care office would need to be comfortable setting aside an appropriate amount of time to give this diagnosis and be prepared to answer all the questions, if the result is positive.

It is important for people to recognize that forgetting is part of daily life and only a detailed history and exam can help differentiate whether memory complaints are normal or abnormal.

If the test is negative, am I in the clear for a cognitive disease?

People should be aware there are other reasons for cognitive impairment besides this disease. Other possibilities are [frontotemporal dementia](#), strokes, Lewy body dementia, thyroid disease and vitamin deficiencies. There is other diagnostic work that should be done before an Alzheimer's test is ordered.

If a person is diagnosed with early Alzheimer's, is there an effective treatment?

There are infusion therapies that target the amyloid protein that is a hallmark of the disease. The Alzheimer's Association says this blood test should be sufficient to qualify someone for these treatments. But infusion treatments are only appropriate for mild symptomatic disease

and only modestly effective. They slow down the progression of the disease by around 30%, but they carry significant risks from severe adverse events from swelling and bleeding in the brain and death in up to 3% of individuals.

Why would someone want an early diagnosis, if they don't have symptoms?

If the preventive trials end up being positive, this [blood test](#) may be part of a routine health screening most adults would receive. Regardless, I think it will eventually be a common tool, because a lot of people with cognitive impairment want to know the cause definitively.

It reduces uncertainty. It helps people prepare for the future and allows them to get their affairs in order such as creating a living will and designating power of attorney. They can decide whether to sell their house and move into an assisted living facility. It allows people to take reasonable measures to try to slow down the disease as much as they can.

What preventive steps can people take now?

For decades we have had other simple oral medications that modestly slow the disease but never targeted the hallmark proteins of Alzheimer's disease. They are still the mainstay of treatment. There are also many lifestyle modifications people should make. They can exercise, correct hearing and [vision loss](#), improve sleep, follow a Mediterranean or MIND diet, stay socially and intellectually engaged and develop good organizational habits for them to rely on in the future.

More information: Shorena Janelidze et al, Plasma Phosphorylated Tau 217 and A β 42/40 to Predict Early Brain A β Accumulation in People Without Cognitive Impairment, *JAMA Neurology* (2024). [DOI](#):

[10.1001/jamaneurol.2024.2619](https://doi.org/10.1001/jamaneurol.2024.2619)

Sebastian Palmqvist et al, Blood Biomarkers to Detect Alzheimer Disease in Primary Care and Secondary Care, *JAMA* (2024). DOI: [10.1001/jama.2024.13855](https://doi.org/10.1001/jama.2024.13855)

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