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The new Alzheimer's blood tests, explained

For decades, confirming Alzheimer's meant a PET scan or a lumbar puncture — or waiting. Blood tests that measure a protein called p-tau217 have changed that. Here's what they actually mean for your family.

What they are

A standard blood sample is tested for phosphorylated tau 217 (p-tau217), sometimes alongside the amyloid beta 42/40 ratio. Levels track closely with the amyloid and tau build-up seen on brain scans. In specialist memory clinics the best of these tests now agree with PET imaging around nine times out of ten — far better than a GP's or general physician's clinical impression alone.

What they can do

- Detect the biology of Alzheimer's — amyloid and tau changes in the brain — from a normal blood draw, often years before the diagnosis would otherwise be confirmed.
- Rule Alzheimer's out with good accuracy. A clearly negative result is one of the most useful things these tests give a family, because it pushes the search towards other causes.
- Cut waiting times. Amyloid PET scans and lumbar punctures are scarce, unpleasant and slow; a blood test is neither.
- Help decide whether someone is a candidate for the newer anti-amyloid treatments, which are only given when Alzheimer's biology is confirmed.

What they can't do

- Diagnose dementia on their own. A positive result means Alzheimer's proteins are present — not that the person's symptoms are caused by them. Diagnosis is still history, function, examination and cognitive testing.
- Tell you when symptoms will start, or how fast things will progress.
- Be used as a screening test for people with no symptoms. Every regulator and specialist body is clear on this, and no reputable clinic should offer it that way.
- Cover the other dementias reliably yet. Vascular dementia, Lewy body dementia and frontotemporal dementia are not what these tests measure, though multi-protein blood panels for those are moving quickly through research.

Where you can get one

UK

Not yet routine on the NHS. Large national studies (the Blood Biomarker Challenge, funded by Alzheimer's Research UK and Alzheimer's Society) are testing how to roll them out through memory clinics. Ask your memory clinic whether they are taking part, or whether a research study near you is recruiting. Private testing exists but should never be done without a clinician to interpret it.

US

The FDA has now cleared blood biomarker tests for use in specialist evaluation of adults 55+ with memory symptoms — one as a diagnostic aid in specialty care, one mainly as a rule-out before referral. Ask a neurologist or geriatrician, not a direct-to-consumer lab. Coverage varies; check before booking.

Four questions worth asking

- "Is Alzheimer's biology confirmed, or is this a clinical diagnosis?" — an entirely fair question, and it changes what treatments are on the table.
- "Would a p-tau217 blood test change what you'd do next?" If the answer is no, the test isn't needed.
- "Have the reversible causes been excluded?" B12 deficiency, thyroid problems, depression and infection still mimic dementia — no blood biomarker replaces that basic workup.
- "If the result is borderline, what happens then?" Indeterminate results are common enough to plan for.

Should you push for one?

If symptoms are clear and the care plan wouldn't change, an early confirmation mainly buys certainty — which some families badly want and others don't. It matters most when the picture is confusing, when symptoms started young, or when you want to know whether the newer anti-amyloid treatments are even a possibility. It's a reasonable thing to want, and a reasonable thing to decline.

Walk into the appointment with evidence, not memory

Specialists act faster when they can see dated examples of what's changed. The Care Companion logs it day by day and prints a one-page summary. Free trial, no card up front.

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General guidance for family carers, not medical advice. Testing availability and licensing change frequently — always confirm with the treating clinician.