Scientists Just Discovered Why Some Brains Stay Decades Younger

5 MIN READ

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A 25-year study reveals the biological traits (and one surprising lifestyle clue) linked to extraordinary memory at 90+.

A quarter-century into tracking Super Ager brain health, scientists have new answers, and a few surprises.

If you've read our **original guide to Super Agers**, you know the basics: these are people over 80 who remember like they're decades younger. But the **newest findings** from Northwestern University's 25-year SuperAging Program give us the clearest picture yet of why, and how, this happens.

It's not just about avoiding memory decline. Super aging about having a brain that resists or even outpaces normal aging, sometimes into the 90s. And while genetics play a role, one clue in particular is something you can work on today.

The Biology of a Super Age Brain at 90

The research team, led by Dr. Sandra Weintraub and colleagues, has now studied hundreds of Super Agers, scanning their brains, testing their cognition, analyzing blood biomarkers, and, in some cases, studying brain tissue after death.

The scientists saw some notable lifestyle and personality differences between SuperAgers and those aging typically, such as being social and gregarious, but "it's really what we've found in their brains that's been so earth-shattering for us," said **Dr.**

Weintraub. Here's some of what they found:

- **Cortex preservation beyond expectations.** While most people over 80 experience significant thinning of the cortex, Super Agers retain the same thickness as people in their 50s and 60s, and in one key region, *more*.
- **The anterior cingulate cortex advantage.** This motivation and social-processing hub is not just preserved, it's thicker than in middle-aged adults.
- **Von Economo neurons in abundance.** These rare, spindle-shaped brain cells, linked to complex social behaviors across humans, apes, dolphins, and elephants, appear in much higher density in Super Agers.

The Social Brain: A Super Ager Signal

The study also confirmed, and deepened, one of the most consistent lifestyle findings: SuperAgers are unusually social. They report higher satisfaction in relationships, stronger community engagement, and more frequent participation in group activities than their peers.

Why this matters: the anterior cingulate cortex and von Economo neurons, both more robust in Super Agers, are deeply tied to **social connection, empathy, and motivation**. This suggests that engaging socially isn't just emotionally nourishing. It may be structurally protective for your brain.

A Case Study in Cognitive Stability

One Super Ager in the study scored 11/15 on a delayed recall test at age 67, and again at age 82, a time when the average score is closer to 5/15. Brain scans showed her hippocampus and amygdala looked entirely normal for someone decades younger. She remained socially active and independent until a sudden illness at 84.

Her postmortem brain showed no significant Alzheimer's pathology, a vivid example of the "resistance" pathway researchers have identified.

5 Practical Takeaways From Super Ager Research

If you're in your 30s, 40s, 50s, or 60s, the message from 25 years of Super Ager research is clear: cognitive decline is *not* inevitable. While there's no guaranteed "Super Ager lifestyle," the habits that stimulate and protect your social brain may have the greatest long-term payoff.

1. **Feed your social brain.** Join activities that require interaction, **empathy**, and **coordination**, like book clubs, racquet sports, volunteer groups, and travel programs.
2. **Combine novelty with connection.** New social contexts **challenge your brain's adaptability**.
3. **Move together.** **Exercise with others** to activate both physical and social brain benefits.
4. **Track engagement.** How much **sleep are you getting**? How much exercise? Reflect weekly: How many meaningful interactions did I have? What can I add next week?
5. **Protect against inflammation.** **Prioritize sleep**, stress management, and **nutrient-rich foods** to support overall brain health.

The Evolving Definition of Super Aging

The 2025 update expands the definition of a Super Ager from "an exceptional memory score" to "a distinct cognitive and biological profile." This includes a brain that resists thinning, maintains unique neuron populations, and **stays socially**

engaged at a high level.

And perhaps the most hopeful finding? While some of these traits may be genetic, others, like nurturing relationships, seeking novelty, and staying engaged, are fully within our control.

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