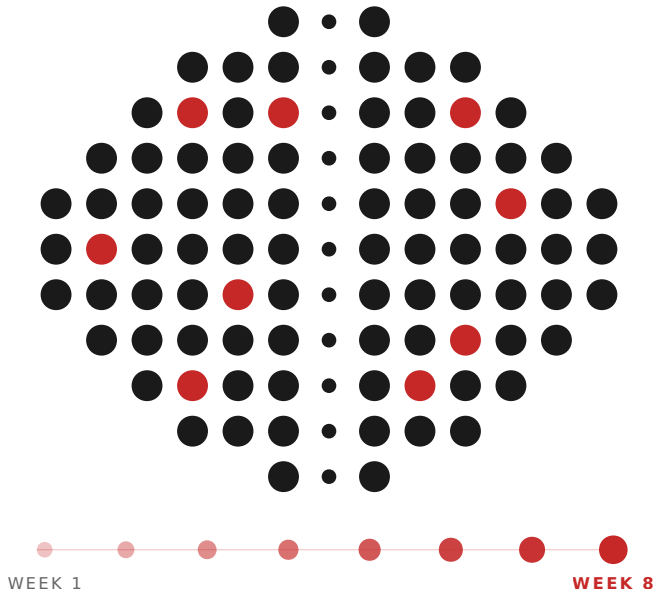
A FIELD GUIDE

The First Eight Weeks

What to actually expect from a cognitive supplement, written for the person who just opened the bottle.



Welcome.

If you're reading this, you've just opened a bottle of Novium-9. Before we say anything else: thank you. The supplement industry is crowded with shortcuts and overclaiming, and you chose something built differently. That trust matters to us.

This guide isn't about Novium-9. It's about *you*, and about what the next eight weeks actually look like from a cognitive standpoint. We've made it because we wished it existed when we were first trying to understand this category. The single biggest factor in whether a cognitive supplement works for you isn't the supplement itself. It's what you expect, what else you do, and how patient you are with the process.

Read it once, save it somewhere, come back to it as needed. We've kept it short on purpose.

SECTION 01

Why this takes time

Most cognitive supplements don't work the way coffee works. You won't take two capsules on Monday morning and feel sharper by lunch. Some ingredients in this category, like citicoline, do show measurable effects within hours of a single dose[1]. But the more interesting effects, the ones we actually care about, take weeks.

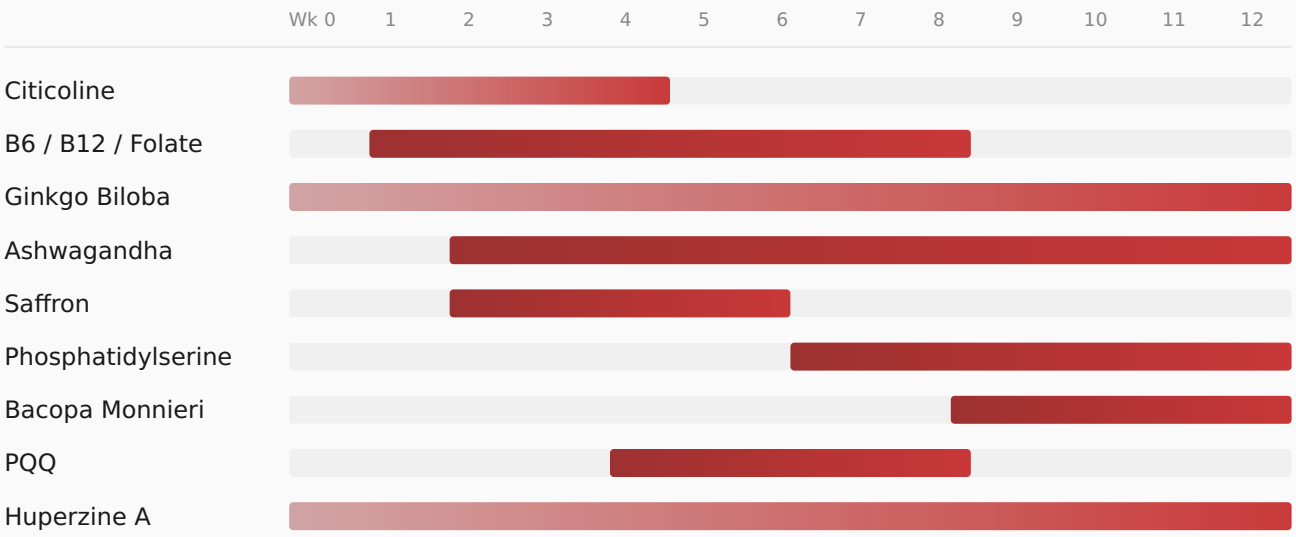
Here's why: the brain doesn't change quickly. It changes through accumulation. Bacopa monnieri, one of the most-studied cognitive herbs in the world, works by gradually modulating how neurons handle new information. In the landmark research, no clinical trial under eight weeks has shown statistically significant memory improvement from bacopa[2]. The trials that *do* show improvement run twelve weeks. That isn't a quirk of those studies. It's how the underlying biology works.

The implication is uncomfortable for anyone selling a supplement: if you judge a cognitive product by what you feel in week one, you'll judge most of them as failures, including the ones that genuinely work. We'd rather tell you that upfront than have you arrive at it through disappointment.

This is also where commercial pressure shows up in the category. When customers can't feel anything fast, businesses build in something they can feel: caffeine, theacrine, sometimes other compounds with stimulant-like action. Those ingredients deliver a noticeable sensation within an hour. They also create tolerance, can disrupt the sleep that underpins cognition in the first place, and make it functionally impossible to tell whether the rest of the formula is doing anything at all.

We made a deliberate choice not to do that. Novium-9 is stimulant-free by design. Plus, the kind of person reading this almost certainly has a coffee or tea ritual already. They don't need a supplement to be another source of caffeine in the day.

VISUAL 01 / THE 8-WEEK INGREDIENT TIMELINE



Most ingredients in this category reach their primary effect window between weeks 4 and 12. Bacopa is the slowest. It's also one of the most-studied.

Bars indicate approximate evidence-supported effect windows; faded leading edges indicate acute single-dose effects observed within hours. See sources 1–9.

SECTION 02

What's actually happening in your brain across these weeks

The interesting thing about a multi-ingredient formula is that different ingredients are doing different work, on different timelines, in different parts of the brain. Here's a rough mental model:

Weeks 1–2 are mostly about *fast pathways*. If you notice anything in this window, it's likely related to acetylcholine (citicoline's mechanism) or stress modulation (ashwagandha).

> **What you might notice:** a kind of quiet that wasn't quite there before. A meeting that doesn't drain you the way it used to. Forty minutes deep in a piece of work before you realize you haven't checked your phone. The half-step-ahead feeling of a day that's asking less of you than it usually does.

Weeks 3–4 are where the *methylation cofactors* (the active forms of B6, B12, and folate) start showing their effects, especially if your baseline status of any of these was suboptimal. These

vitamins help every other system in your brain work more smoothly, without creating dramatic shifts of their own.

> **What you might notice:** an evenness through the day you didn't quite have before. The 3pm wall is now more of a soft dip. A minor irritation at work that would have rattled you last month somehow slides past you. A steadier mood, the kind you only notice in retrospect.

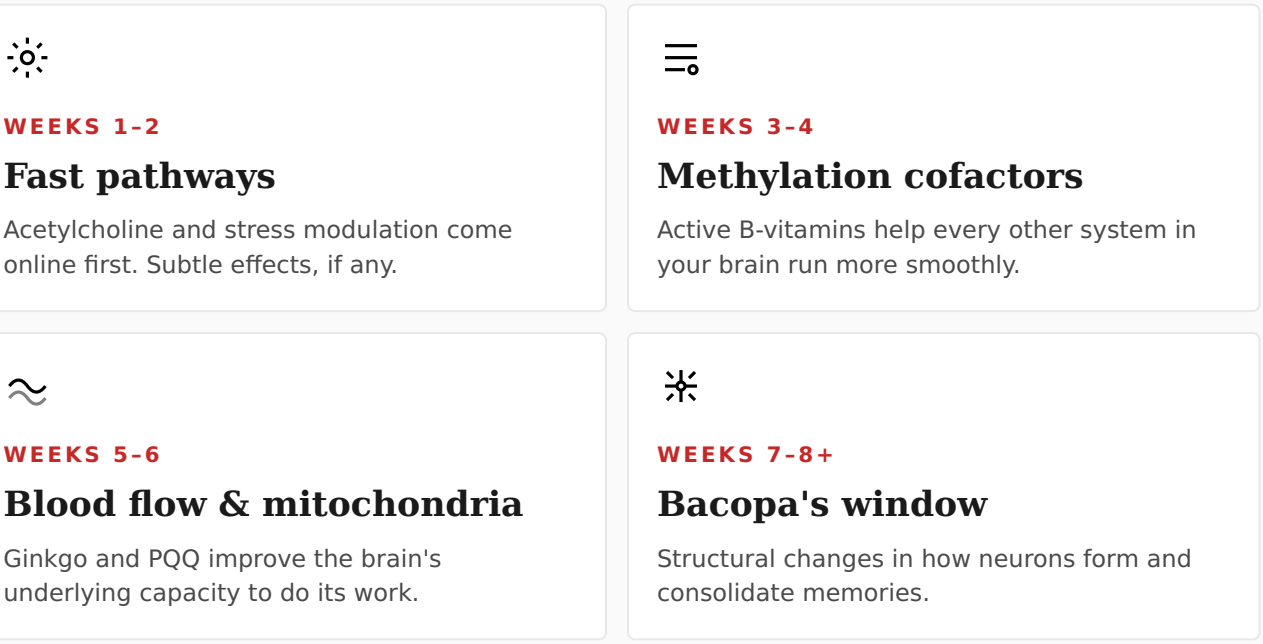
Weeks 5–6 are typically when *blood flow and mitochondrial effects* show up: ginkgo biloba and PQQ. The mechanism here isn't subjective sharpness; it's the brain's underlying capacity to do its work.

> **What you might notice:** deeper reserves. The afternoon doesn't ask as much of you as it used to. A dense article you actually finish. A long work session where, instead of grinding to a halt at the end, you realize you could have kept going. The pleasant surprise that your brain has more in the tank than it used to.

Weeks 7–8 and beyond are bacopa's window. This is the slowest mechanism in the bottle and arguably the most interesting: actual structural changes in how neurons form and consolidate memories. The published research consistently finds effects emerging around weeks 8–12, with the strongest effects on delayed recall[2].

> **What you might notice:** the moment people tend to remember when they look back. The name of someone you met last Tuesday, right where you need it. A book chapter from last week that hasn't blurred. A conversation you can still recall the shape of, days after. Memory starts to feel slightly less slippery than it used to.

VISUAL 02 / FOUR PHASES OF MECHANISM



SECTION 03

How cognitive supplements actually work

Most cognitive supplements work through one of four mechanisms:

1. **Providing raw materials** the brain needs but might not have in adequate supply (active B-vitamins, choline precursors).
2. **Modulating neurotransmitter systems**, particularly acetylcholine (memory and focus) and the stress-related neurotransmitters that interfere with cognition when elevated.
3. **Improving cerebral blood flow.** Your brain consumes roughly 20% of your body's oxygen and glucose despite being 2% of your body weight. Anything that improves the supply chain helps.
4. **Supporting structural maintenance:** neuronal membrane integrity (phosphatidylserine), mitochondrial function (PQQ), and the slow neuroplasticity processes (bacopa).

None of these mechanisms produce dramatic effects on a daily basis. They produce small, cumulative improvements in how efficiently the brain does what it already does.

> **A note on B-vitamin forms.** You may have noticed Novium-9 uses methylcobalamin, methylfolate (L-5-MTHF), and pyridoxal-5-phosphate (P-5-P): the active forms of B12, folate, and B6. A meaningful percentage of the population (estimates vary, but the figure is commonly cited as 30–50% in some studies) carries genetic variants like the MTHFR polymorphism, which reduce the body's ability to convert standard B-vitamin forms into their active versions[10]. Active forms bypass this conversion entirely.

VISUAL 03 / FOUR MECHANISM PATHWAYS

Raw materials	→	P-5-P (B6), Methylfolate, Methylcobalamin (B12), Citicoline
Neurotransmitter modulation	→	Citicoline, Huperzine A, Ashwagandha, Saffron
Cerebral blood flow	→	Ginkgo Biloba
Structural maintenance	→	Phosphatidylserine, PQQ, Bacopa Monnieri

Four parallel mechanisms feeding the same endpoint: how efficiently your brain does what it already does.

SECTION 04

What happens to the brain as we age (and the surprising part)

There's a story most of us absorbed somewhere: cognitive performance peaks in your twenties and declines from there. It's wrong, or at least far too simple.

In 2015, researchers Joshua Hartshorne and Laura Germine published an analysis of nearly 50,000 people's performance on cognitive tasks across the adult lifespan. What they found was that different cognitive abilities peak at radically different ages[11]:

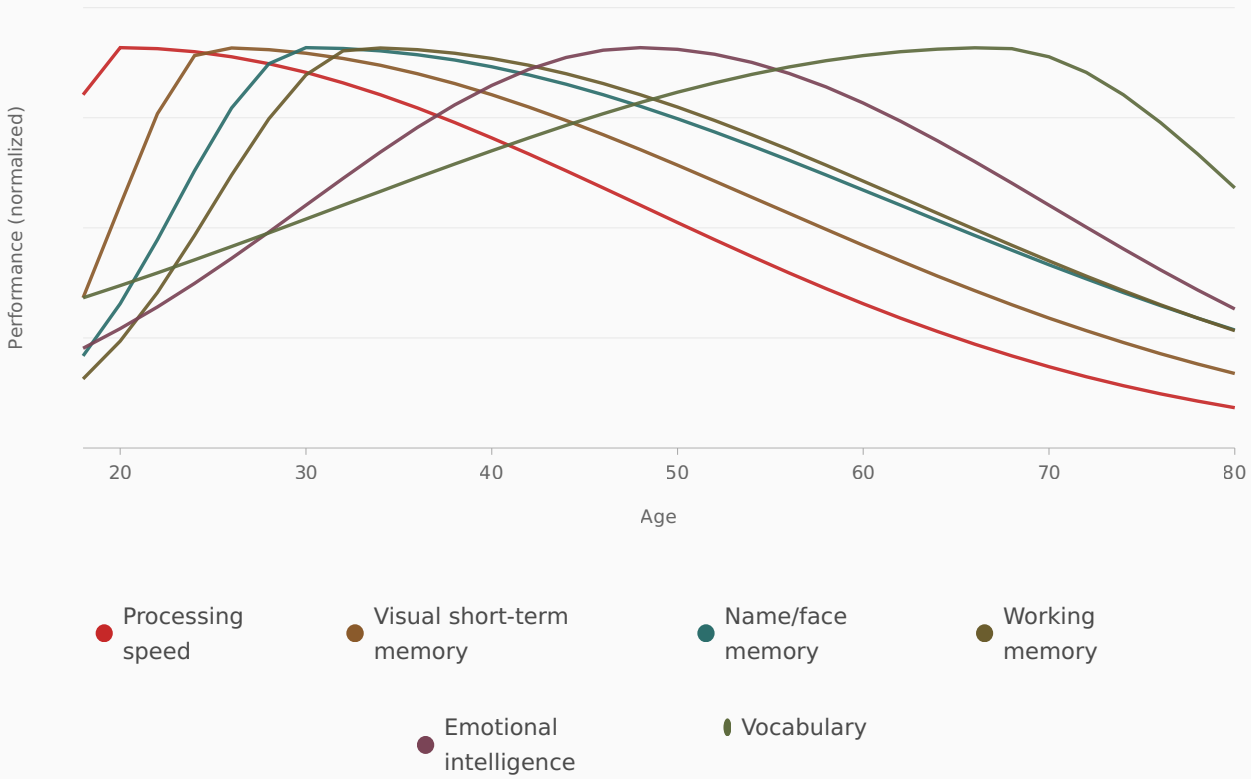
- **Processing speed** peaks in your late teens to early twenties
- **Short-term memory** for new faces and names peaks around age 30
- **Working memory** peaks in your late twenties to early thirties, then declines slowly
- **Emotional intelligence** (the ability to read other people's emotional states) peaks in your forties and fifties

Vocabulary and crystallized knowledge peak as late as your sixties or seventies

In other words: at any given age, you're getting better at some things, holding steady on others, and slowly losing ground on others. There's no single moment when you "peak." The version of you who can read a room is probably better at it now than the version of you at twenty-five. The version of you who knows what words mean is almost certainly more verbally capable.

What declines first, and most steeply, is the *raw-speed* end of the spectrum: processing speed and working memory. This is what cognitive supplements primarily target.

VISUAL 04 / WHEN DIFFERENT COGNITIVE ABILITIES PEAK



Different cognitive abilities peak at different ages. There is no single moment of decline.

Adapted from Hartshorne & Germine, *Psychological Science* (2015), n=48,537. Curves are smoothed approximations of the published peak ages.

SECTION 05

The bigger picture

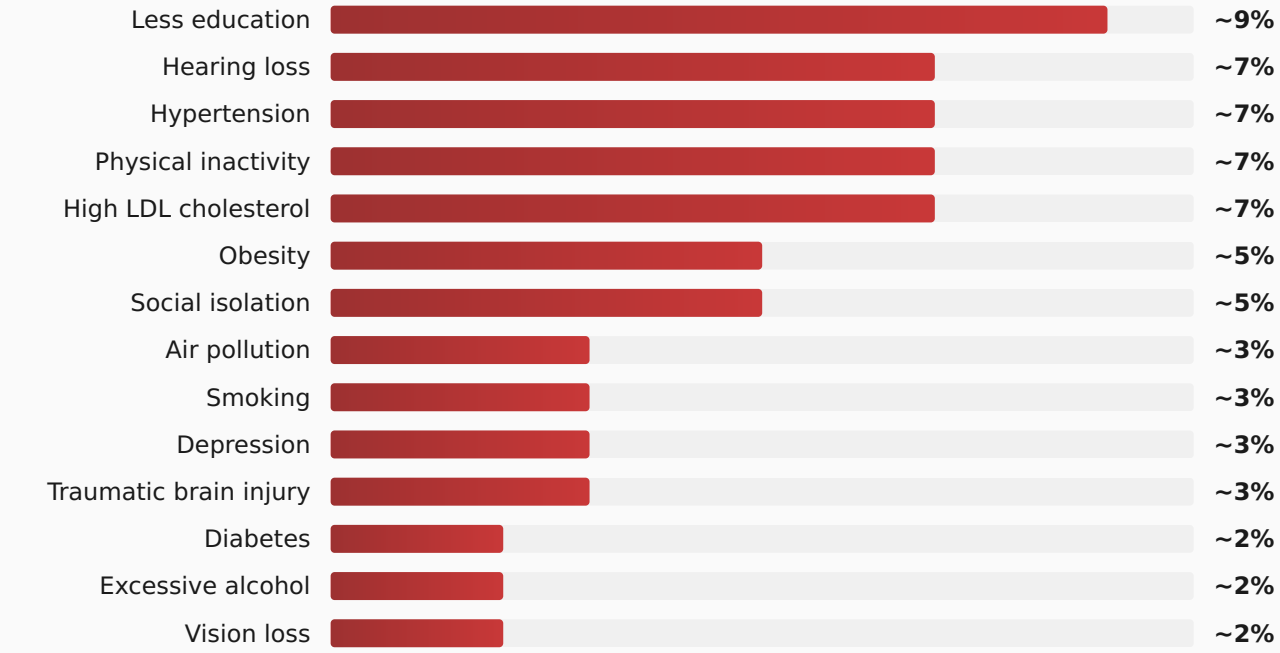
It would be convenient to tell you that the supplement you just bought is the most important thing you can do for your brain. It isn't.

The 2024 Lancet Commission on Dementia Prevention, the most comprehensive scientific review on this topic, identified 14 modifiable risk factors that together account for roughly 45% of dementia cases worldwide[12]. Note that "lack of supplementation" doesn't appear on this list. Diet, exercise, sleep, social connection, cognitive engagement, and managing cardiovascular health drive far more of the variance in long-term brain health than any pill does. Supplements work on the margin. The margin is real, but it's the margin.

We bring this up because we want to be useful to you, not just sell you something. If you take Novium-9 every day for eight weeks and ignore your sleep, your blood pressure, and your aerobic exercise, you'll get a fraction of the benefit you'd get from doing it all together.

> **Worth knowing:** Two of the nine active ingredients in Novium-9 (ashwagandha and saffron) have peer-reviewed clinical evidence for improving sleep quality at the doses included[56]. Sleep happens to be one of the single most powerful determinants of cognitive performance. The compounding effects are not accidental.

VISUAL 05 / MODIFIABLE RISK FACTORS FOR COGNITIVE DECLINE



Combined, these 14 factors account for roughly 45% of dementia cases worldwide.

2024 Lancet Commission on Dementia Prevention, Intervention, and Care. Percentages are approximate global population-attributable fractions.

SECTION 06

Five things worth knowing

Some scattered, well-sourced facts about cognitive performance that might surprise you.

1

17 hours awake equals a 0.05% blood alcohol level.

Being awake for 17 hours impairs cognitive performance as much as being at the legal driving limit in most countries. After 24 hours awake, the impairment is equivalent to 0.10%. Sleep is not optional cognitive infrastructure.

Dawson & Reid, *Nature*, 1997[13]

2

A 12-month walking program partially reverses age-related hippocampal shrinkage.

Forty minutes, three times a week, for a year increased hippocampal volume by approximately 2% in older adults, effectively reversing one to two years of normal age-related decline.

Erickson et al., *PNAS*, 2011[14]

3

Your vocabulary likely keeps growing into your sixties.

The tip-of-the-tongue feeling is real and does increase with age. But underlying vocabulary, measured on standardized tests, peaks somewhere in your sixth or seventh decade, not your twenties.

Hartshorne & Germine, *Psychological Science*, 2015[11]

4

Hearing loss accounts for ~7% of global dementia risk.

It's one of the largest modifiable risk factors known. The mechanism appears to combine reduced cognitive input, social isolation, and changes in auditory processing regions. Treating it in midlife is high-leverage.

Lancet Commission, 2024[12]

5

Working memory is the function most likely to respond.

Working memory, the ability to hold and manipulate information in real time, responds most robustly to several of the ingredients in this category. It's also the function that declines earliest in normal aging. If you notice improvement anywhere, this is statistically the most likely place.

See ingredient citations[12]

SECTION 07

What to do, and what hurts your results

If you want to give Novium-9 the best chance to do something measurable in your life over the next eight weeks, here's what the research suggests matters most:

Take it consistently, with food. Many of these ingredients are fat-soluble or are better absorbed with a meal. Skipping days resets the accumulation curve, especially for bacopa.

Prioritize sleep. Seven to nine hours, consistent schedule. This is the single biggest factor in whether you notice cognitive improvements from anything.

Move your body. Aerobic exercise has more published evidence for cognitive benefit than any supplement on the market. They compound; they don't substitute.

Be honest about your alcohol intake. Even moderate drinking impairs the consolidation processes that some of these ingredients are designed to support. We're not going to tell you to stop drinking. We're going to tell you that the math gets harder if you don't.

Track something. Subjective feelings about cognition are notoriously unreliable. Most people genuinely cannot answer "was I sharper this week than last week?" without a record to look back at. A weekly note in your phone (a line on focus, a line on recall, a line on how the week generally went) costs almost nothing and gives you real reference points at week eight. The bar is intentionally low. What matters is that the data exists.

VISUAL 07 / WHAT COMPOUNDS AND WHAT UNDERMINES

COMPOUNDS YOUR RESULTS	UNDERMINES YOUR RESULTS
+ Consistent daily dosing	− Skipping days
+ Seven to nine hours of sleep	− Sleep deprivation
+ Aerobic exercise	− Regular alcohol load
+ Social engagement	− Chronic unmanaged stress
+ Sustained cognitive challenge	− Sedentary baseline

We'll close with the thing we wish someone had told us when we first took this category seriously:

The interesting effects of cognitive supplements are not subjective. They are not "I feel sharper." They are not a buzz, a lift, or an obvious shift in how the day feels. The interesting effects show up as: slightly easier recall of a name you used to lose; staying focused for longer than you remember being able to; the absence of the late-afternoon fog that used to be standard.

Those are quiet improvements. They are the right kind of improvements. And they take eight weeks, give or take.

Thanks for being patient with us, and with yourself.

— The Novium-9 team

Sources

1. Synoradzki, K., & Grieb, P. (2019). Citicoline: A Superior Form of Choline? *Nutrients*, 11(7), 1569.
2. Stough, C., et al. (2008). Examining the nootropic effects of a special extract of Bacopa monniera on human cognitive functioning: 90-day double-blind placebo-controlled randomized trial. *Phytotherapy Research*, 22(12), 1629–1634. Plus Roodenrys, S., et al. (2002). Chronic effects of Brahmi (Bacopa monnieri) on human memory. *Neuropsychopharmacology*, 27(2), 279–281.
3. Smith, A.D., & Refsum, H. (2016). Homocysteine, B Vitamins, and Cognitive Impairment. *Annual Review of Nutrition*, 36, 211–239.
4. Kennedy, D.O., et al. (2007). Effects of cholinesterase inhibiting sage on the cognitive performance of young adults. *Psychopharmacology*, 191(1), 25–34.
5. Salve, J., et al. (2019). Adaptogenic and Anxiolytic Effects of Ashwagandha Root Extract in Healthy Adults. *Cureus*, 11(12), e6466. Plus Cheah, K.L., et al. (2021). Effect of Ashwagandha extract on sleep: A systematic review and meta-analysis. *PLoS ONE*, 16(9), e0257843.
6. Lopresti, A.L., et al. (2020). An investigation into the effects of a saffron extract on sleep quality in adults with self-reported sleep complaints. *Journal of Clinical Sleep Medicine*, 16(6), 937–947.
7. Kato-Kataoka, A., et al. (2010). Soybean-derived phosphatidylserine improves memory function of the elderly Japanese subjects with memory complaints. *Journal of Clinical Biochemistry and Nutrition*, 47(3), 246–255.
8. Nakano, M., et al. (2012). Effects of oral supplementation with pyrroloquinoline quinone on stress, fatigue, and sleep. *Functional Foods in Health and Disease*, 2(8), 307–324.
9. Yang, G., et al. (2013). Huperzine A for Alzheimer's disease: a systematic review and meta-analysis of randomized clinical trials. *PLoS ONE*, 8(9), e74916.
10. Frosst, P., et al. (1995). A candidate genetic risk factor for vascular disease: a common mutation in methylenetetrahydrofolate reductase. *Nature Genetics*, 10(1), 111–113.
11. Hartshorne, J.K., & Germine, L.T. (2015). When Does Cognitive Functioning Peak? The Asynchronous Rise and Fall of Different Cognitive Abilities Across the Life Span. *Psychological Science*, 26(4), 433–443.
12. Livingston, G., et al. (2024). Dementia prevention, intervention, and care: 2024 report of the Lancet standing Commission. *The Lancet*, 404(10452), 572–628.
13. Dawson, D., & Reid, K. (1997). Fatigue, alcohol and performance impairment. *Nature*, 388(6639), 235.
14. Erickson, K.I., et al. (2011). Exercise training increases size of hippocampus and improves memory. *Proceedings of the National Academy of Sciences*, 108(7), 3017–3022.