

FEATURED SPEAKER:

MASTERING THE MARKET

WOMEN'S WELLNESS

JUNE 23 - 25

DR. COLLEEN FOGARTY DRAPER, PHD, RD

Scientist, Entrepreneur, and Clinical Dietitian
specializing in nutrition systems biology,
metabolic health, and gender dimorphism

Decoding Cognitive Longevity: Add Life to Years

JUNE 24: 11:25 AM - 11:55 AM EST



THIS SESSION SPONSORED BY:



WAIT? WHAT IS COGNITIVE LONGEVITY & WHERE ARE MY CAR KEYS?



With a growing aging population globally & increased reliance on digital technology, cognitive wellness and healthy longevity has never been more of a priority.

Cognitive longevity is about preserving your **memory, attention, perception, learning, reasoning, problem-solving, language, & judgment** throughout your life stages.

It's about maintaining the quality of how well your brain can perform & how you can optimize it as you face information overload, the side effects of over-reliance on digital tech & other environmental impacts on your brain health.

It's about keeping your **86 billion neurons** (nerve cells) talking to each other clearly, quickly and with maximum flexibility through trillions of connections.

YOUR BRAIN LIFESPAN - WINDOWS OF VULNERABILITY

Bacomind®



Learning &
neurodiversity



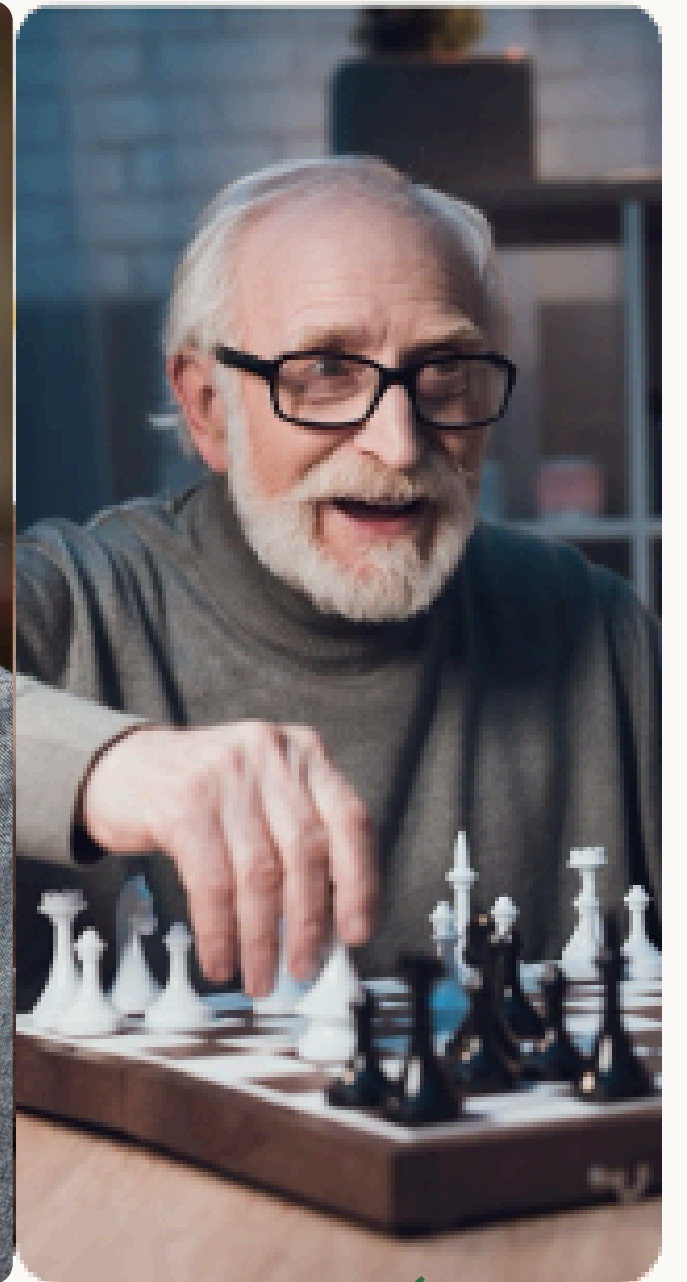
Stress, sleep,
mood, cognition



Cognitive
performance-
focus, attention

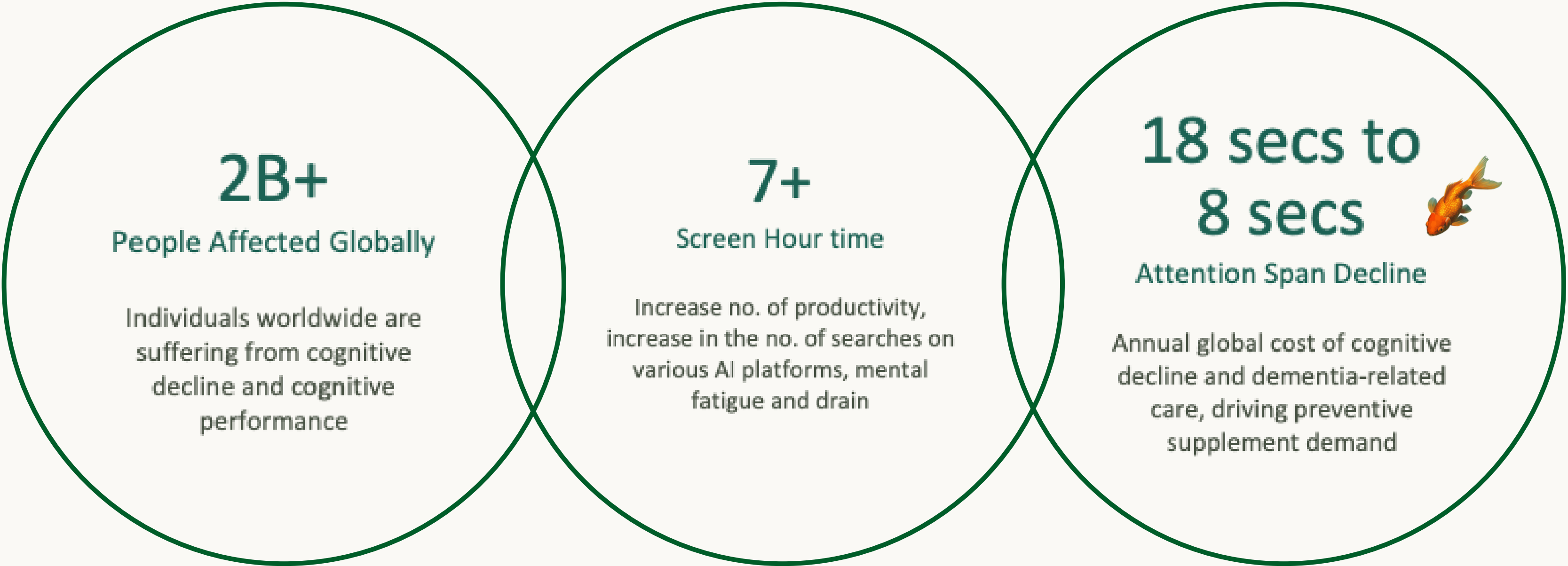


Midlife hormone
changes- anxiety,
focus, brain
energy



Healthy longevity -
memory,
mood/motivation

COGNITIVE DECLINE: A GROWING GLOBAL CONCERN



Lifestyle
Epidemic

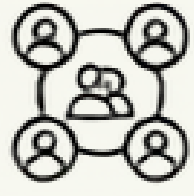
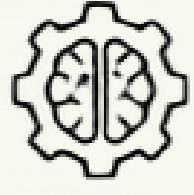
Digital overload, stress, and sleep deprivation fueling cognitive complaints across all ages

Demographic
Wave

Ageing populations creating unprecedented demand

TECHNOLOGY & DIGITAL MEDIA USE CHALLENGES



Domain	Potential Harms
Attention 	ADHD symptom worsening
Sleep 	Circadian disruption
Social 	Increased isolation
Cognition 	Memory dependency

Your Brain's Anatomy: The Machinery of Cognitive Longevity

Mapping cognitive domains onto cortical and subcortical anatomy

01 Frontal Lobe EXECUTIVE FUNCTION

Decision-making, planning, and sustained focus. Manipulating information to reach a goal.

02 Temporal Lobe AUDITORY & MEMORY

Language comprehension and the encoding of new memories. The substrate of learning.

03 Parietal Lobe SENSORY INTEGRATION

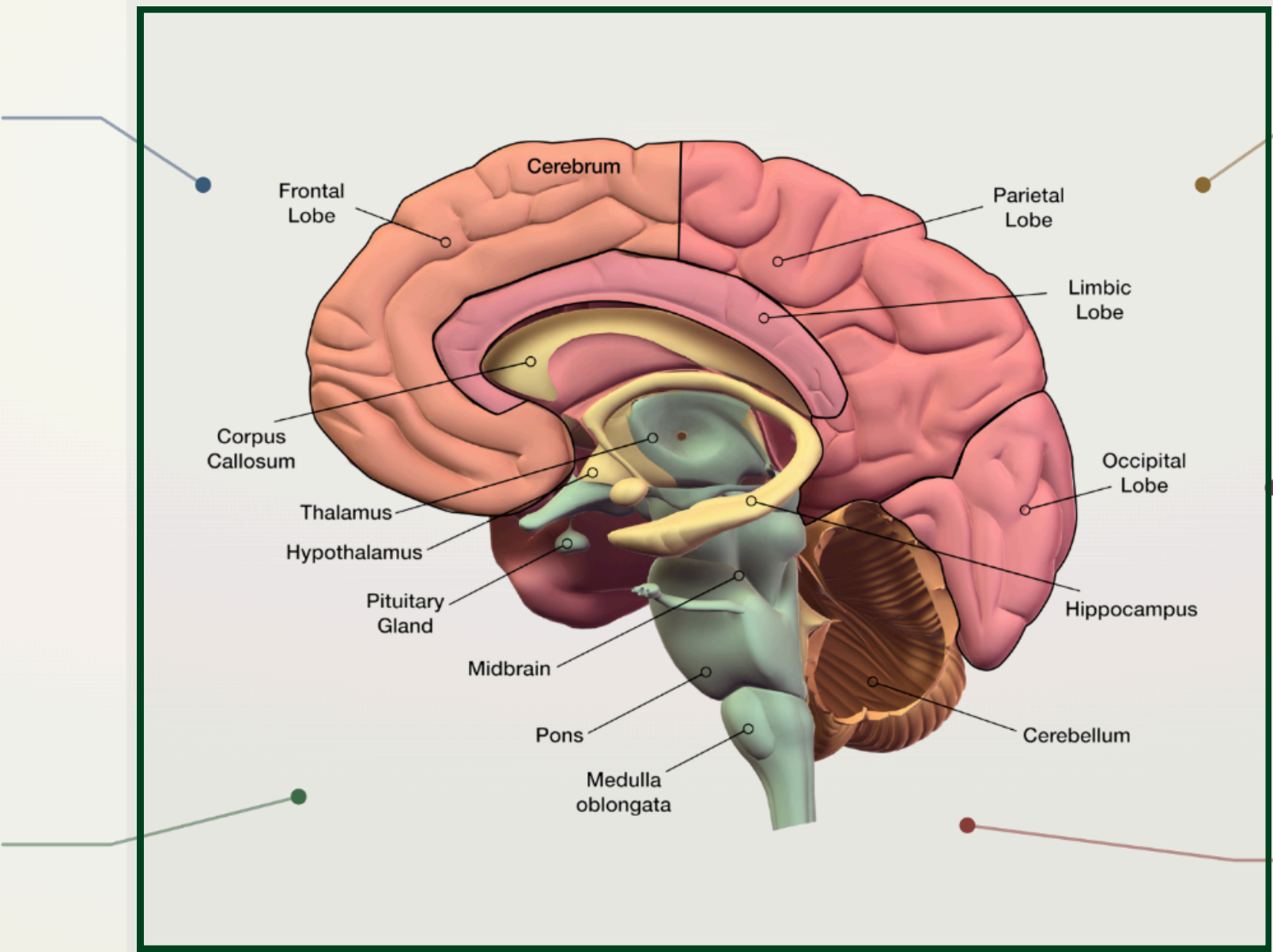
Spatial awareness and navigation; integrating sensory streams into one coherent map.

04 Occipital Lobe VISUAL INTERPRETATION

Not just seeing, but recognizing faces, text, and symbols as meaning.

05 Amygdala EMOTIONAL PROCESSING

Fear response and the emotional processing of experience.



DEEP STRUCTURES · HIPPOCAMPUS

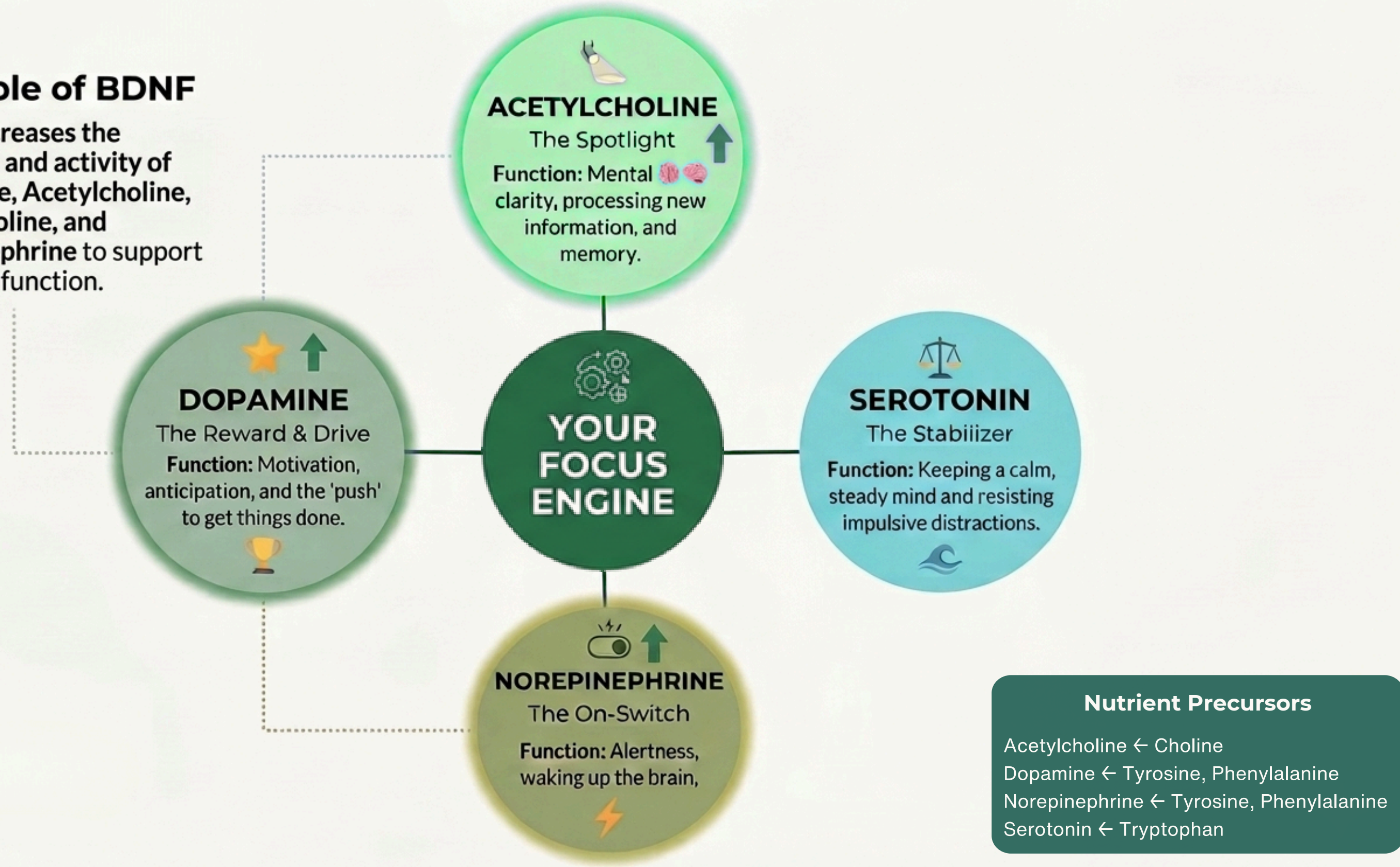
Consolidates short-term experience into durable long-term memory.
The mechanism of learning.

NEUROTRANSMITTERS ARE YOUR VITAL MESSENGERS

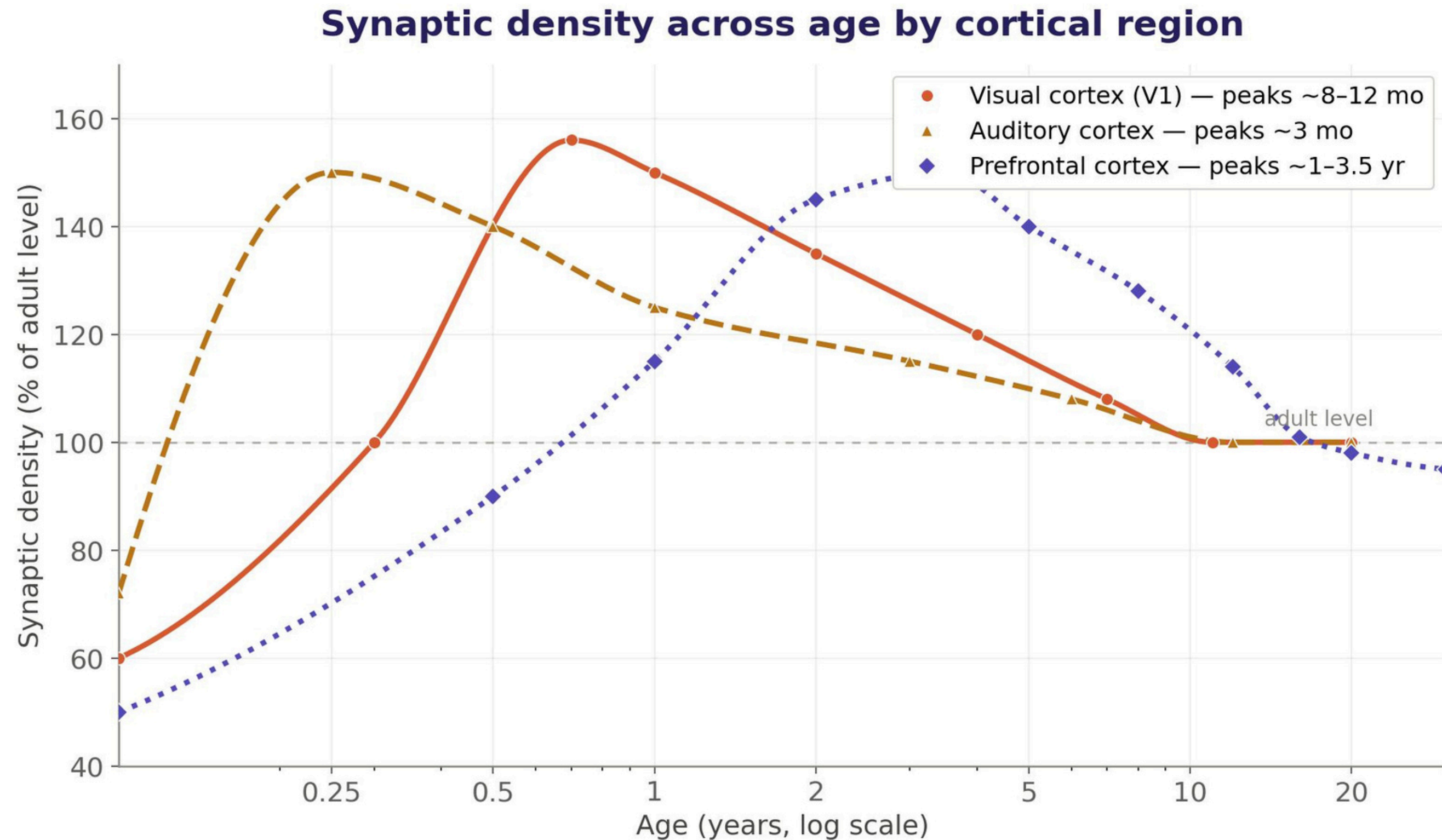
NEUROTRANSMITTERS FACILITATE COGNITION - MEMORY, FOCUS/ATTENTION, LEARNING

The Role of BDNF

BDNF increases the synthesis and activity of Dopamine, Acetylcholine, Acetylcholine, and Norepinephrine to support cognitive function.



EARLY AGE : BRAIN DEVELOPMENT



Source: schematic of trends reported in Huttenlocher & Dabholkar (1997), J. Comp. Neurol. 387:167-178; and Huttenlocher (1990), Neuropsychologia 28:517-527. Curves are approximate, intended to show relative timing of peak synaptogenesis and pruning rather than exact counts.

HOW TO REDUCE YOUR COGNITIVE LONGEVITY WITH FOOD & LIFESTYLE

alcohol excess
pollution
excess carbs
saturated fats
damaged
simple sugars
poor sleep
no fiber
no exercise
chronic stress



Acute and chronic sleep deprivation in residents: Cognition and stress biomarkers ^{Bacomin®}

Shoham Choshen-Hillel ¹, Ahmad Ishqer ², Fadi Mahameed ², Joel Reiter ², David Gozal ³, Alex Gileles-Hillel ^{2 4}, Itai Berger ^{5 6}

Affiliations + expand

PMID: 32697336 PMCID: PMC7854866 DOI: 10.1111/medu.14296 [↗](#)

Abstract

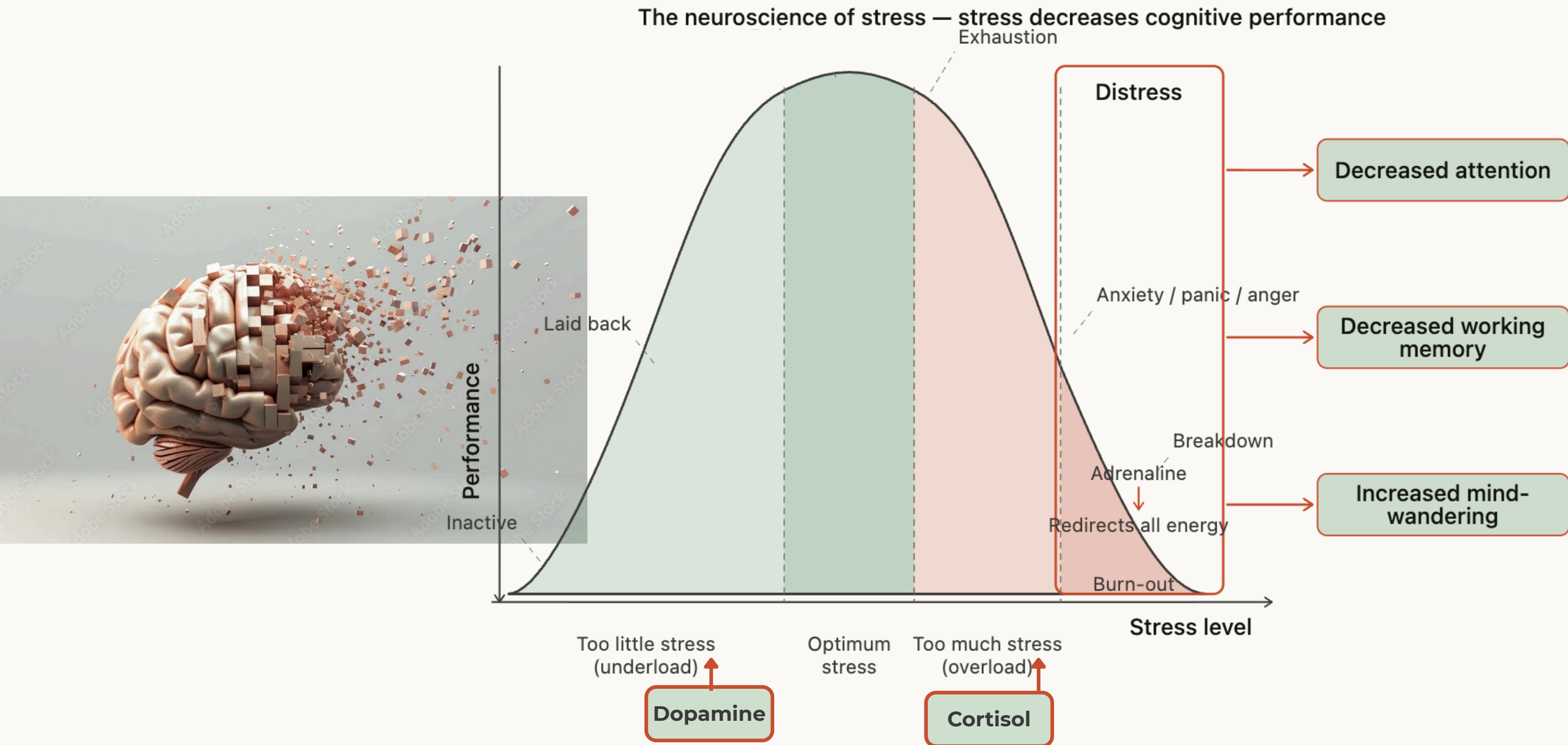
Objectives: Insufficient sleep affects circadian hormonal profiles and inflammatory markers and may modulate attention, executive functioning and decision-making. Medical professionals and specifically resident physicians, who are involved in long-term nightshift schedules during their post-graduate training, are prone to acute and chronic sleep deprivation and disruption, putting them at risk for making medical errors. The aim of the study was to evaluate the impact of chronic and acute-on-chronic sleep deprivation and disruption among residents on selected physiological and cognitive measures.

Methods: Thirty-three medical and surgical residents were evaluated twice - at baseline and after a 26-hour shift. Eighteen young attending physicians who did not engage in nightshift schedules served as controls and were evaluated once. Measures included morning cortisol and high-sensitivity C-reactive protein (hs-CRP), computerised tests of attention and behaviour, the Behaviour Rating Inventory of Executive Function, a risk-taking questionnaire and the Pittsburgh Sleep Quality Index.

Results: Residents, but not attendings, reported chronic sleep disruption and deprivation. Residents at baseline exhibited reduced morning cortisol levels and elevated hs-CRP levels, compared to attendings. Residents at baseline had impaired global executive function compared to attendings. A nightshift with acute sleep deprivation further reduced residents' executive function. Residents at baseline and after a nightshift demonstrated increased impulsivity and slower processing time than attendings. Residents and attendings did not differ in risk-taking tendencies which were assessed in a separate cohort.

Conclusions: In a real-life setting, resident physicians exhibit increased low-grade systemic inflammation (hs-CRP) and impaired HPA-axis function. Their chronic sleep curtailment is associated with greater impulsivity, slower cognitive processing, and impaired executive function. Future research is warranted to understand how improving working schedule by increasing sleep duration may minimise the short-term and potential long-term risks to physicians in training.

HOW TO IMPROVE YOUR COGNITIVE LONGEVITY WITH STRESS



The Key Distinction: Normal Aging vs. Decline

A HEALTHY AGING BRAIN SHRINKS WITH AGE
WE CAN ADDRESS NORMAL MEMORY CHANGES BEFORE SERIOUS DECLINE
YOU CAN GENERATE NEW NEURONS AT ANY AGE

Normal Aging

Taking a bit longer to recall
a name

Slower multitasking

Briefly forgetting the words for a
familiar objects

Gradual, subtle shifts toward greater
calm and emotional stability

Cognitive Decline

Forgetting names you know well

"Stops Walking When Talking" (SWWT)

Permanently losing common words from
everyday vocabulary

Sudden or dramatic personality
changes such as, new aggression,
suspicion, or loss of inhibition

MENOPAUSE STARTS IN THE BRAIN!

Lisa Monsconi, 2019

62-67% women have cognitive symptoms, often referred to as **brain fog**, during **perimenopause** that significantly impact work and quality of life.

- Difficulty concentrating, losing train of thought.
- Forgetfulness, memory compliants.
- Challenges with multi-tasking.

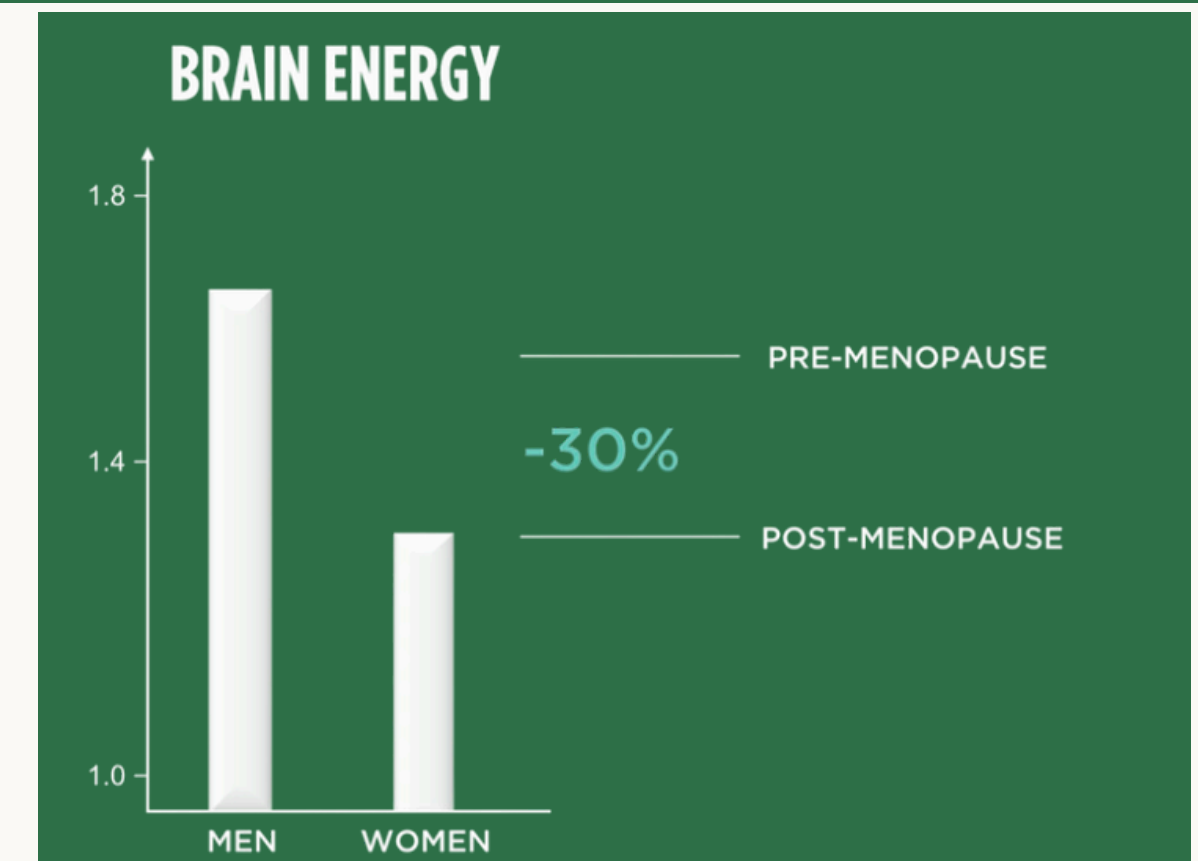
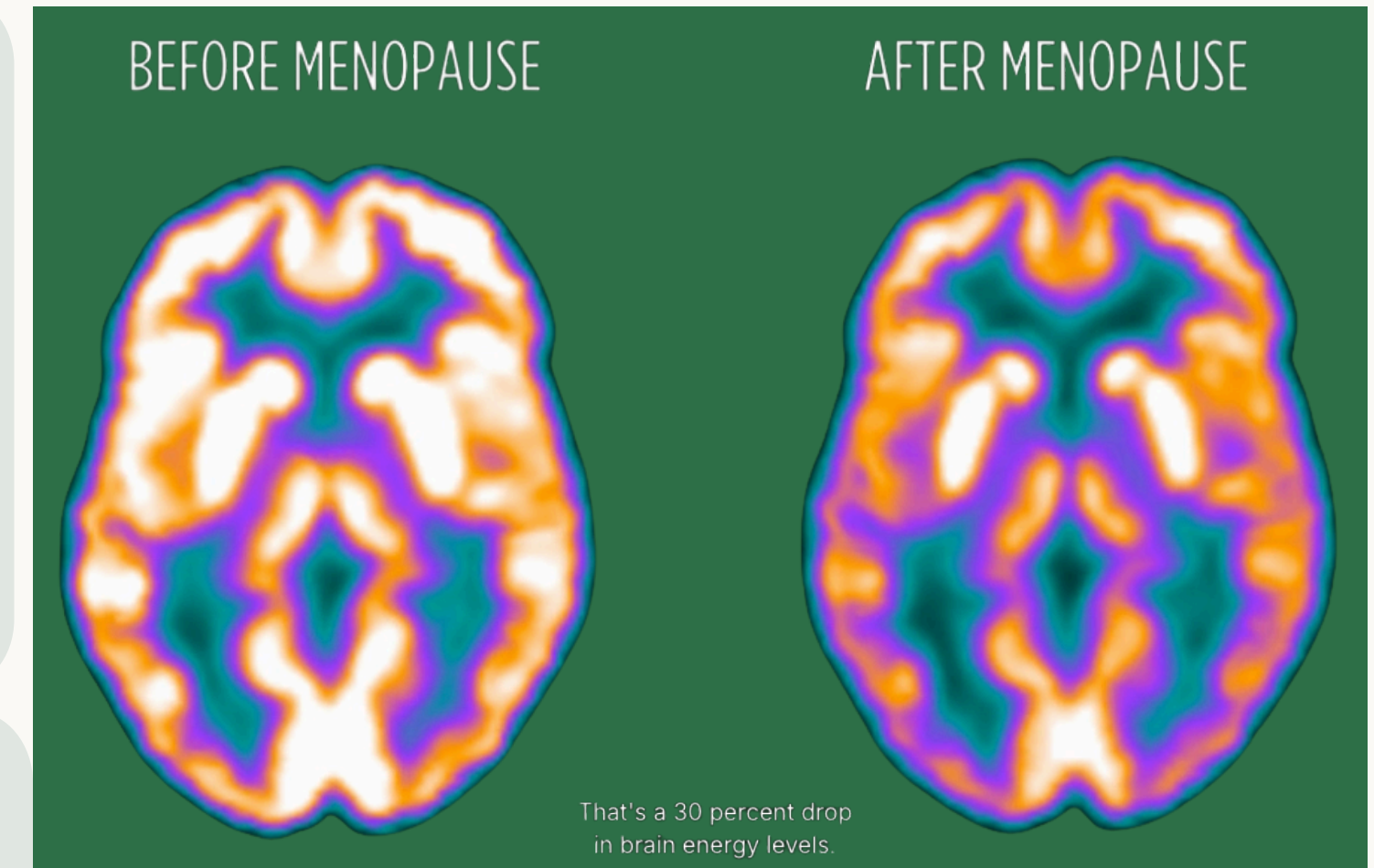
<https://pubmed.ncbi.nlm.nih.gov/41122799/>

Multi-model neuroimaging across pre, peri and post-menopause, indicates differences in:

- Brain structure
- Connectivity
- Energy metabolism

The good news is this is not permanent!

<https://pubmed.ncbi.nlm.nih.gov/34108509/>



DOES YOUR BRAIN HAVE DIABETES?

2x

Higher Alzheimer's risk with diabetes
Higher Alzheimer's risk in women vs men

How sugar damages the brain

Sugar spike



Insulin surge



Brain glucose
drop



Decades of
damage

The metabolic pattern in Alzheimer's mirrors insulin resistance in the body

What the research shows

Insulin resistance damages the hippocampus

The same process that hurts your kidneys hurts your memory center.

High-normal fasting glucose still hurts

Levels of 95-105 mg/dL are linked to brain shrinkage on imaging.

GLP-1 drugs may protect the brain

Semaglutide associated with 40-70% lower Alzheimer's risk vs. other diabetes drugs.

The fix is mostly behavioral

- Walk 10 minutes after meals
- Protein and fiber before carbs
- Sleep affects glucose almost as much as food
- Strength training improves insulin sensitivity faster than cardio

Your fasting glucose is a brain measurement.



BUILDING LEG MUSCLES INCREASES BDNF WHICH INCREASES COGNITION

The Association between Lower Extremity Muscular Strength and Cognitive Function in a National Sample of Older Adults.

Emily Prith 1, Paul L Loprinzi 1

[Affiliations + expand](#)

PMID: 30474005 PMCID: 66239135 DOI: 10.152280/jim.2018.8.2.99

Training muscles to keep the aging brain fit.

Johannes Burtscher 1, Martha Burtscher 2

[Affiliations + expand](#)

PMID: 39876710 PMCID: PMC1338364 DOI: 10.10720/jm.2004.04.0662

Kicking Back Cognitive Ageing: Leg Power Predicts Cognitive Ageing after Ten Years in Older Female Twins.

Claire J Steves 1, Mitul M Muthal, Stephen H D Jackson, Tim D Spector

[Affiliations + expand](#)

PMID: 26555605 PMCID: PMC4789972 DOI: 10.1159/800441029

MUSCLE & BRAIN MEMORY



DANCING IMPROVES BRAIN PLASTICITY, STRUCTURAL CONNECTIVITY & COGNITIVE FUNCTION

Effects of dance interventions on brain health for older adults with cognitive impairment: an umbrella review

Raquel A C S Pragas 1, Magda Kaczmarek 3, Dangel Senger 2,4, Stefanie D Dfifa-Fauadore 2
Sophia W Light 5, Maritza Painta-Caipa 6, Petron Bass 8,8, Aline N Hass 10,11

[Affiliations + expand](#)

PMID: 4119043 PMCID: IMCI288780 DOI: 10.1186/s12877-025-06483-7

Enhanced memory and hippocampal connectivity in humans 2 days after brief resistance exercise.

Jesas Hodimats 10, Mainasu Rata 2, Knda Kudashava 3

[Author Information](#) ♦ [Active Iruns](#) ♦ [Copyright and License Inference](#)

PMID: PMCPRK3222 PMID: [1388062](#)

Skeletal Muscle Health and Cognitive Function: A Narrative Review

Sophia X Ra 1, Lane J Mikams 3, Kara L Holloway-Way 5, Hatate K Hyde 4, Jule A Faeco 1,2,3,4

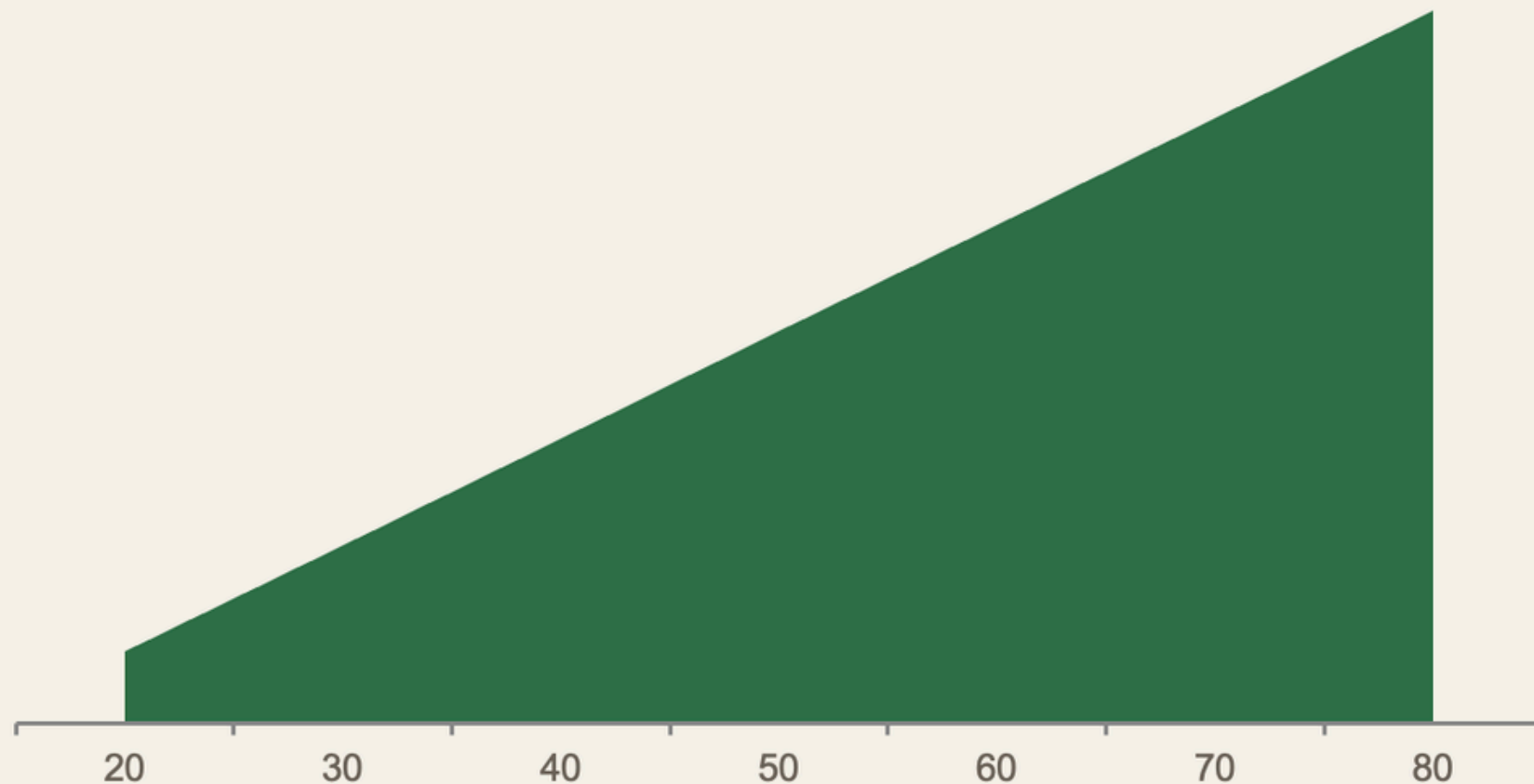
[Affiliations + expand](#)

PMID: 33348620 PMCID: PMC7799996 DOI: 10.3390/jim22016255c

COGNITIVE RESERVE IS AN INVESTMENT

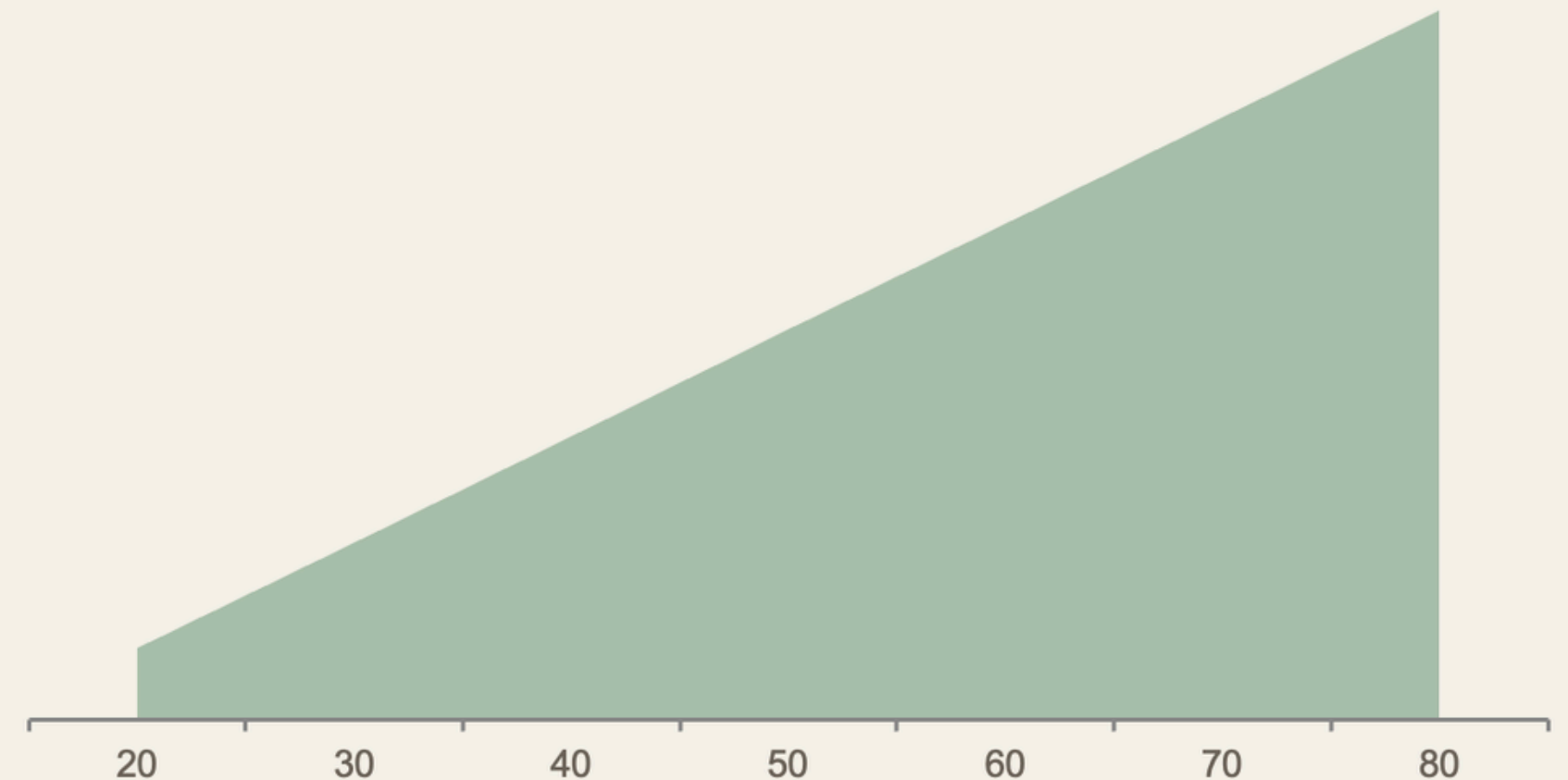
The same principle that grows a retirement account, with small consistent contributions compounding over decades, builds the brain's capacity to withstand age-related decline.

Cognitive Reserve



Age (Years) → Brain's resistance to age-related decline

Retirement Investment



Age (Years) → Value of accumulated savings

Start early, contribute consistently. Nutrition, Exercise, Learning, and Sleep are the deposits. Made daily over a lifetime, they compound into brain resilience just as steady saving compounds into retirement security.



WHAT MAKES WOMEN'S COGNITIVE AGING DISTINCT

Women's cognitive aging is not simply men's aging plus longevity. These six distinctions define a separate biological narrative.

The Perimenopausal Brain

Brain glucose hypometabolism begins in the 40s. This opens the critical neuroprotective window years before menopause.

Disproportionate Alzheimer's Risk

Women are ~2/3 of Alzheimer's cases. APOE4 risk is higher in women, who also accumulate tau faster than men.

Reproductive History as Brain History

Preeclampsia, gestational diabetes, and early menopause each leave lasting neurological footprints.

The Midlife Acceleration Window

Brain changes precede symptoms by 10 to 15 years. The 40s and 50s are the highest-impact investment window.

Neuroinflammatory Vulnerability

Higher autoimmune rates (lupus, MS, RA) create cumulative neuroinflammatory load, amplified by the postmenopausal inflammatory shift.

Cognitive Symptoms Are Misread

Women's cognitive changes are routinely misattributed to depression or perimenopause. Most screening tools were built for men.

WHERE YOU CAN INVEST

These six lifestyle domains are the daily deposits: evidence-based, modifiable at any age, and compounding over time. The behavioral side of the reserve equation.

Hormonal Health Management

Proactive HRT timing discussions with your clinician are a neuroprotective act.

Cardiometabolic Control

Blood pressure, glucose, and lipid control are the highest-yield cognitive investments available.

Sleep Architecture

7 to 9 hours of sleep drives daily glymphatic clearance of amyloid. Sleep hygiene and CBT-I are front-line tools.

Stress & Mental Health

Mindfulness and therapy lower cortisol and protect hippocampal volume. This is applied neuroscience.

Physical Activity

150 min/week aerobic plus twice-weekly resistance training is the top evidence-supported cognitive prescription at any age.

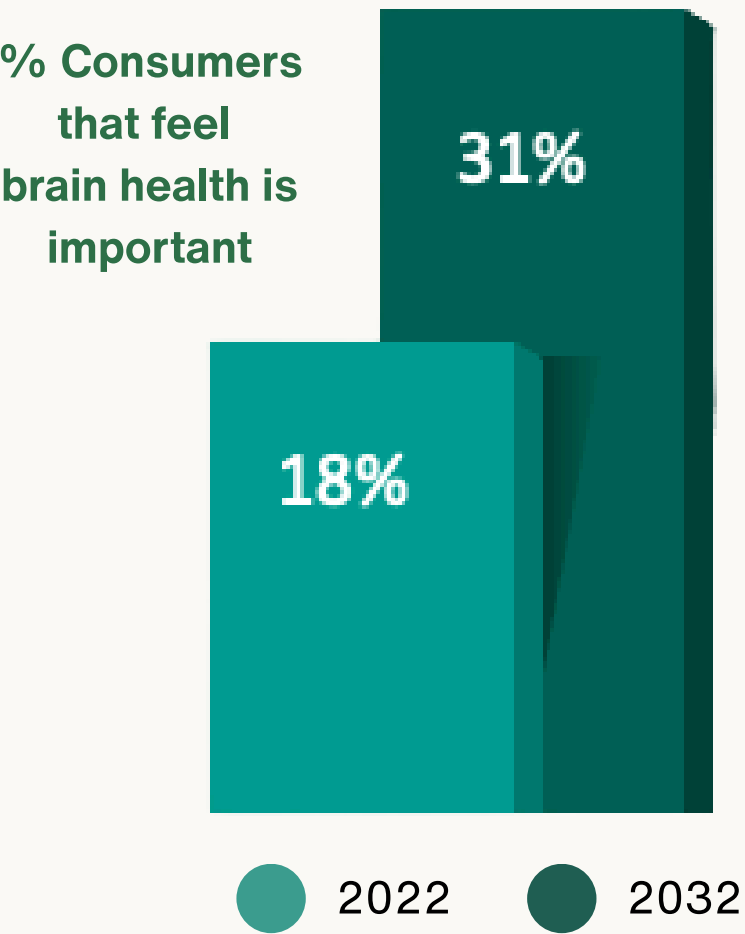
Social & Cognitive Engagement

Social connection and novel learning directly build synaptic density and are underutilized as cognitive tools.

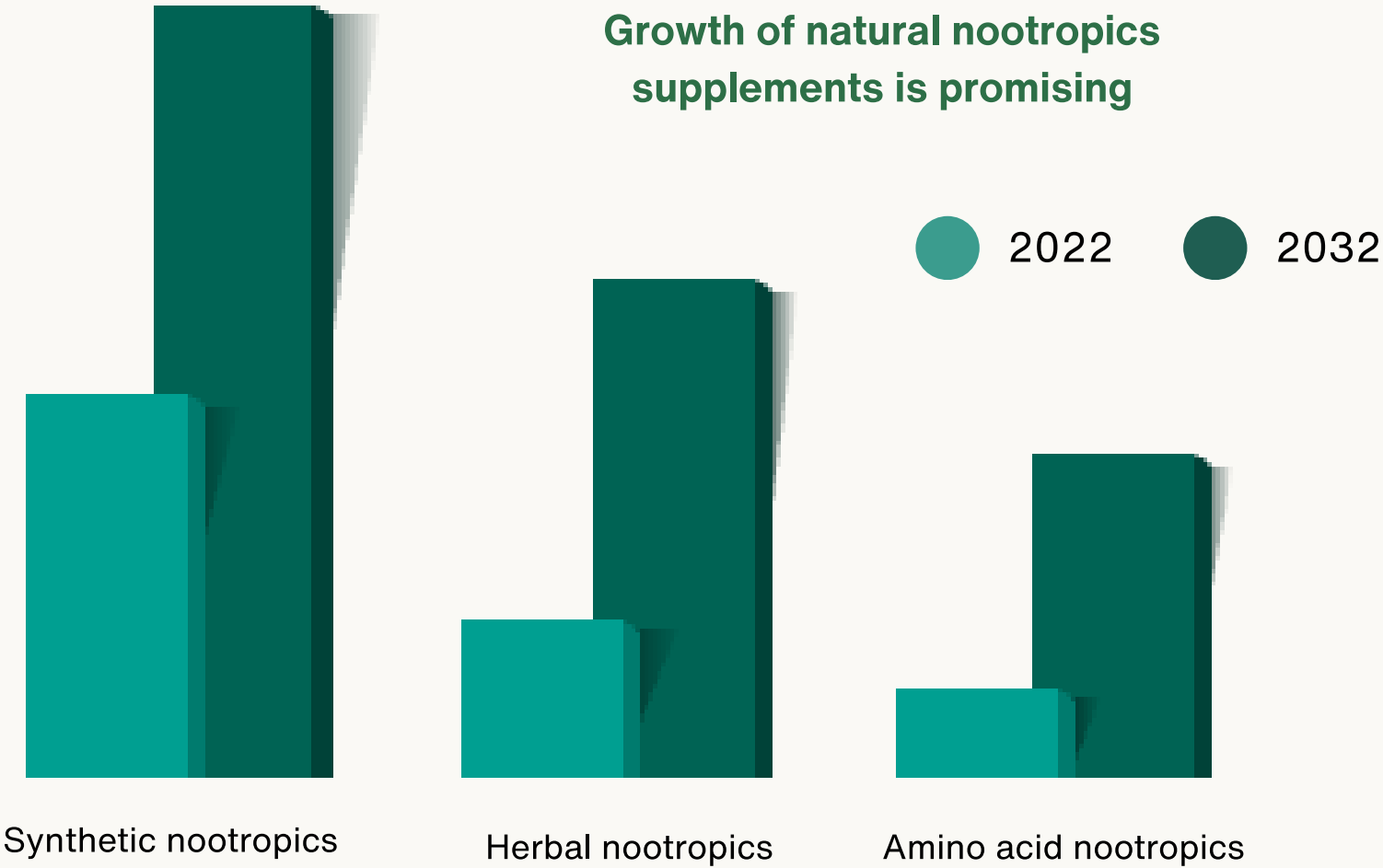
BRAIN SUPPLEMENT INTEREST IS ON THE RISE

Cognitive Ageing is gaining traction across the globe

NOOTROPICS - Substances proven to improve cognition & support healthy brain function.



Growth in brain health



Growth in natural nootropics

CLASSIFICATION BASED ON MECHANISM OF ACTION

NOOTROPICS

```
graph TD; N[NOOTROPICS] --> S[SEROTONERGIC]; N --> C[CHOLINERGIC]; N --> D[DOPAMINERGIC]; N --> G[GABANERGIC]; N --> NE[NEUTROPHIC]; N --> A[ADAPTOGENIC]; S --> S1[Influence serotonin levels]; S1 --> S2[Eg: Bacopa, 5-HTP, Tryptophan]; C --> C1[Impact acetylcholine levels]; C1 --> C2[Eg: Piracetam, Choline, Bacopa]; D --> D1[Modulate dopamine levels]; D1 --> D2[Eg: Bacopa, Tyrosine, Phenylalanine]; G --> G1[Enhance GABA activity]; G1 --> G2[Eg: Vitamin B6, Zinc]; NE --> NE1[Promote nerve cell growth]; NE1 --> NE2[Eg: Bacopa, Royal Jelly, Lion's mane]; A --> A1[Support stress resilience]; A1 --> A2[Eg: Ashwagandha, Bacopa, Ginseng];
```

SEROTONERGIC

Influence serotonin levels

Eg: Bacopa, 5-HTP, Tryptophan

CHOLINERGIC

Impact acetylcholine levels

Eg: Piracetam, Choline, Bacopa

DOPAMINERGIC

Modulate dopamine levels

Eg: Bacopa, Tyrosine, Phenylalanine

GABANERGIC

Enhance GABA activity

Eg: Vitamin B6, Zinc

NEUTROPHIC

Promote nerve cell growth

Eg: Bacopa, Royal Jelly, Lion's mane

ADAPTOGENIC

Support stress resilience

Eg: Ashwagandha, Bacopa, Ginseng

Classification of Ingredients as per cognitive function

01. MEMORY & LEARNING



BACOPA MONNIERI,
Ginko Biloba
Magnesium

Nueroprotector,
Neuro morpholgical changes
Nerotarnsmission

02. MENTAL ENERGY & FATIGUE



BACOPA,
ASHWAGANDHA,, PQQ,
NMN

Adaptogenic effect
helps achieve
heterostatis

03. FOCUS & PRODUCTIVITY



BACOPA,
CAFFEINE & LION'S
MANE MUSHROOM

Blocking adenosine
receptors in your brain

04. STRESS & ANXIETY



HOLY BASIL,
RHODOLIOLA ROSEA & L -
THEANINE
ASHWAGANDHA

Fights Oxidative stress

World's First Clinically Tested Bacopa



What is Bacopa?

Herb

Bacopa monnieri, also known as Brahmi, is a revered medicinal herb in Ayurveda, India's ancient healing system.



Benefit

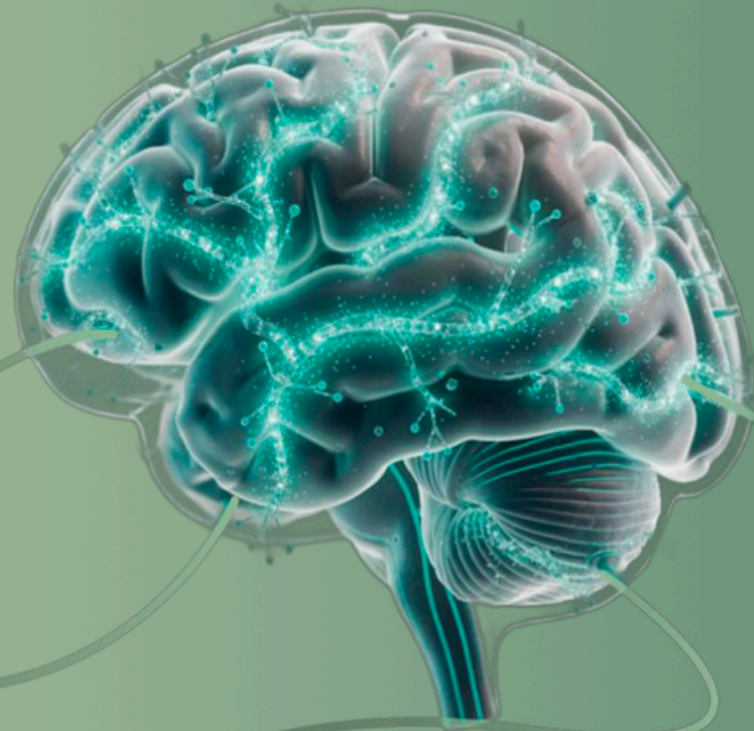
Known for its nootropic (brain-enhancing) and adaptogenic properties.



Cultivation

Grows in wetlands and marshy areas across India and Southeast Asia.

Bacomind® Shaped Bacopa Cognition Market Since 2005



9

Power of
bio actives



Most potent Bacopa
with its Bacoside
composition



5

Clinical efficacy
& safety studies



Certified to sell
across the globe

BacoMind®: 9 Bioactives & It's Benefits

Bacosides

(Bacopaside I and II Bacoside A3, Bacopasaponin C and its isomer)

- Neuroprotection
- Antistress
- Anti-oxidant
- NT release
- (AMPA, GABA and NMDA)¹

6 Leutolin

Microbiome modulation
Gut-brain axis²

7 Apigenin

Improves cerebral
blood flow³

8 Bacosine & 9 Beta Sitosterol

Decreases age related changes brain
function deterioration^{4,5}



1. <https://pubmed.ncbi.nlm.nih.gov/29676230/>
2. <https://pubmed.ncbi.nlm.nih.gov/33434535/>
3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6630913/>
4. 10.1016/j.jff.2017.04.044
5. 10.4196/kjpp.2020.24.1.39

BacoMind®: Mechanism of Action

Neuronal Morphological Changes

Increases number of dendrites & dendrite branching



Neuroprotection

Inhibits ROS and PARP Provides neuroprotection



Neurotransmission

Inhibits COMT and PEP

- Spares useful dopamine
- Norepinephrine and Substance P



Antagonises Serotonin Receptor (5-Ht6)

- Enhances cholinergic & glutaminergic transmission



Memory



Focus



Attention



Recall



Add **7.0 years** of
cognitive age
with

Bacomind®

BacoMind Supports Cognitive Longevity

In a randomized, double-blind, placebo-controlled trial, 98 healthy participants > 55 yrs received BacoMind @300mg/day x 12 weeks

Group	Baseline	12 Weeks	Change
BacoMind	41.4 (SD 9.2)	44.3 (SD 8.5)	+2.9 points
Placebo (n=45)	41.2 (SD 8.4)	39.4 (SD 9.2)	-1.9 points

Treatment Effect
= +4.8 POINTS
P=0.011

The participants took Rey Auditory Verbal Learning Test (AVLT) pre and post intake of BacoMind and placebo. Bacopa significantly improved verbal learning, total learning (p=0.011). The improvement indicates a significant benefit on cognitive ageing.
BacoMind the key AVLT Total Learning (Σa1–a5) values are:
Net group difference (treatment effect) = +4.7 points (statistically significant, p=0.011)

BacoMind Improves Learning Ability Equivalent to 7 years of Reversed Cognitive Age Decline in Adults > 55 yrs

Group comparisons	Value
Normative annual (learning) decline (T1–5 Total, age 55–80)	-0.7 points/year
Bacomind group improvement over 12 weeks	+2.9 points
Placebo group decline over 12 weeks	-1.8 points
Net treatment effect (group difference)	+4.7 points
Cognitive age equivalent of net effect (4.7/0.7=6.8)	~7 years

Testimonials For Bacomind® Across The Globe

100+
formulations
Globally



DYNAMIC BRAIN User Review

★★★★★ **Worth it**



Reviewed in the United States on July 4, 2025

Verified Purchase

I'm an active 59 yr old in a high stress job and started taking these about 6 months ago now I'm hooked. The level of clarity and recall I get is far better than expected to the point where if I don't take them, it makes a big difference. To save money I skip on weekends or vacation and notice a slight brain fog (might be my imagination) but for work swear by them. Worth it, try for 30 days at least and see what I mean.

8 people found this helpful



julie w. us
Verified Buyer

★★★★★ **My mind loves it!**

I was taking a different brand of bacopa and find this brand & formulation to be much better at helping with focus, mood & concentration.



From the United States

John M

★★★★★ **Take it every day.**

Reviewed in the United States on June 24, 2024

Verified Purchase

This is an excellent product for keeping me alert.

One person found this helpful

Helpful

Report

Testimonials For Bacomind® Across The Globe

100+
formulations
Globally



28/10/2019

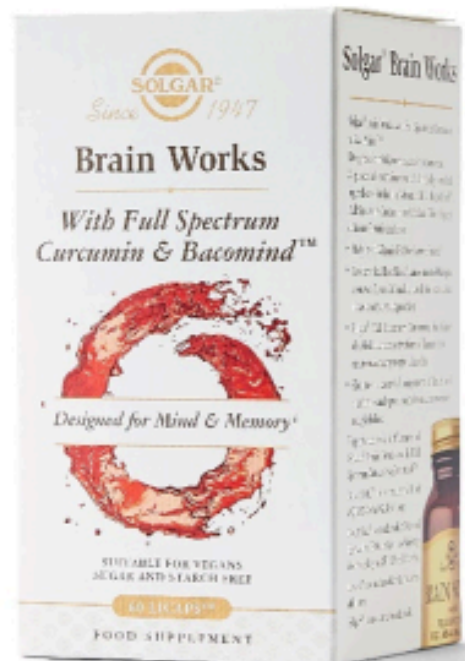
I've been using it for more than 4 years, and I have a very good memory.

jean-pierre R.

Enthusiastic customers about MemoQuick® Intenz

"At the 40th class reunion, I could still remember all the names. MemoQuick is a great remedy, Dr. Hittich! I don't want to do without that for another day!"

Ursula Gerdon,
39104 Magdeburg



4 years ago

I have already tested this product which gave it a zen feel. And avoid products with too many ingredients.



8 years ago

I have been taking this product for a number of years and feel that it helps my working memory. First time ordered on line and received it promptly and in good condition.

CAN YOU TEST HOW YOUR BRAIN IS AGING?

The Brain Longevity Issue ▾

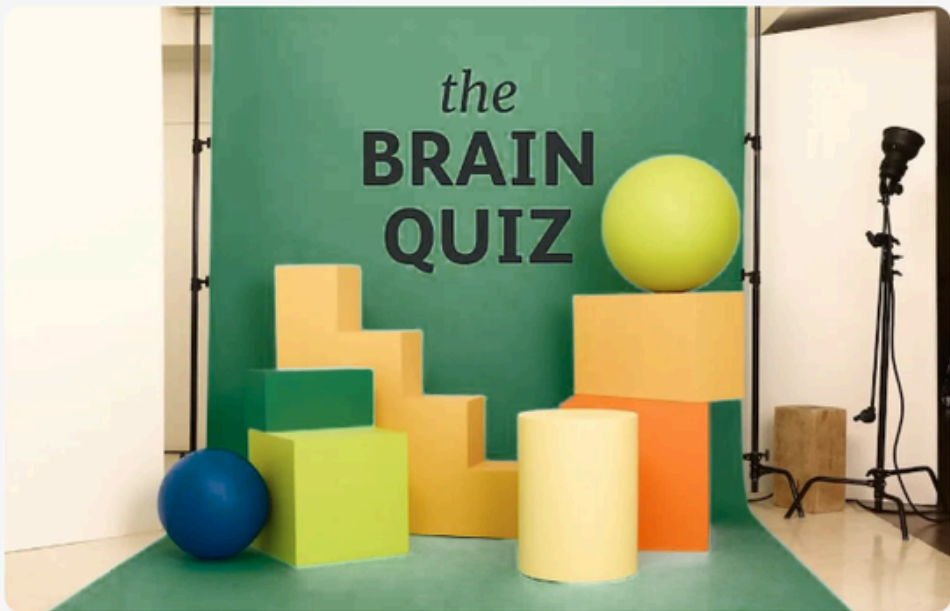
What's Your Brain Age?

By [Team Verywell Health](#) | Published on December 01, 2025

✓ Medically reviewed by [Sohaib Imtiaz, MD](#)

Your age in years doesn't always match the age of your brain. Memory, focus, reaction time, and problem-solving skills all reveal how sharp—or sluggish—your brain may be.

This fun quiz challenges your mental speed and flexibility with quick puzzles and memory tasks to estimate your "brain age." Take the quiz to see if your brain feels younger, older, or right on track—and get a sense of how your everyday habits may be affecting your mental fitness.



Take the Quiz

Before you begin the quiz, memorize this list of words:

Brain Age Brackets

20s–30s

- Cognitive performance is sharp and efficient.
- Memory recall, pattern recognition, and logical reasoning are strong.
- Able to process new information quickly and solve multi-step problems with ease.
- Minimal errors on complex tasks; excellent attention and focus.

40s–50s

- Cognitive skills are solid, with occasional minor lapses in memory or reasoning.
- Able to solve most problems but may require slightly more effort for multi-step tasks.
- Patterns and sequences are recognized reliably, though some tricky items may slow response time.
- Regular mental exercises can help maintain and even improve performance.

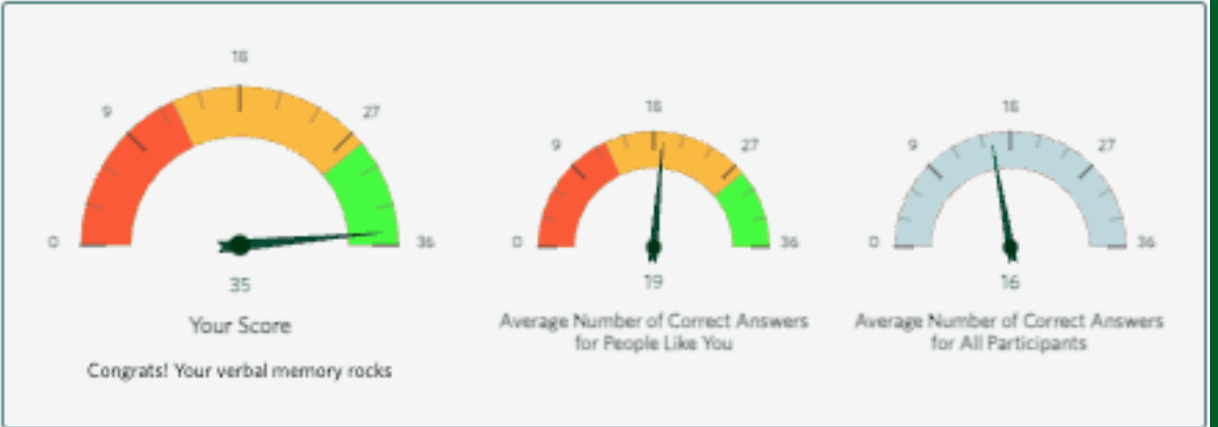
60s+

- Cognitive function shows noticeable slowing or gaps in reasoning, memory, or pattern recognition.
- Multi-step tasks and new information may require extra attention or repetition.
- Mistakes are more frequent on complex or abstract problems.
- Brain exercises, learning, and mental stimulation are strongly recommended to maintain sharpness.

YOUR RESULTS

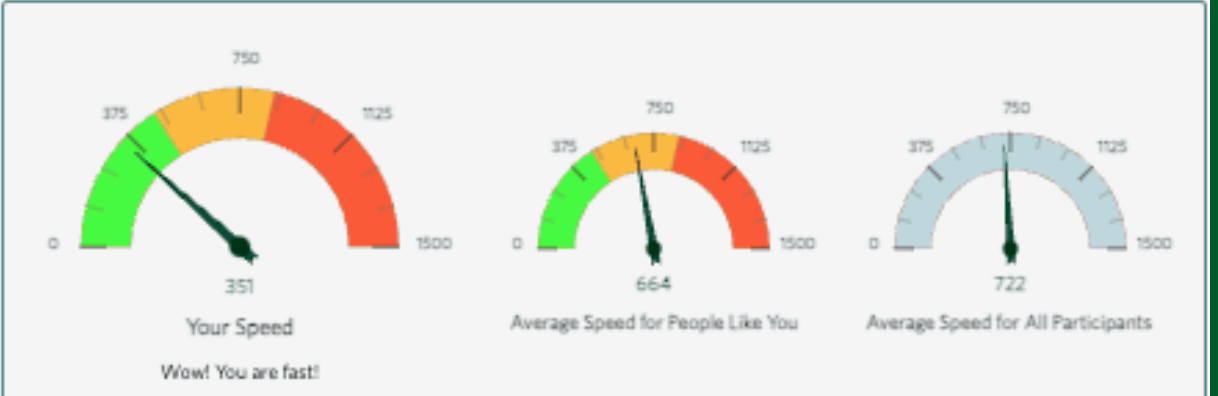
Memory Test

The first gauge shows the number of word pairs you answered correctly. A perfect score is 36 word pairs. The second gauge shows how people like you scored. These are previous MindCrowd participants who are similar to you in age, biological sex, and education. The third gauge shows the overall average for all previous MindCrowd participants.



Attention Test

The first gauge shows your speed on the attention test in milliseconds. Small numbers indicate a faster speed and a better score. The second gauge shows how people like you scored. These are previous MindCrowd participants who are similar to you in age, biological sex, and education. The third gauge shows the overall average for all previous MindCrowd participants.



FIND OUT YOUR BRAIN AGE

