Lumen Health
NeuroAge Wellness Report

John Doe
Age: 47.0 | Sex: Male
ID#: 41946951
Collected: 2025-09-09 | Reported: 2025-09-15
Fasted: True

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Welcome to your personalized report on Brain Health

What Is Lumen?

The Lumen Brain Health Test is our specialized panel built to decode your mind's resilience through key blood biomarkers. Unlike basic health screens, Lumen focuses on the biology of cognition — revealing how your brain, hormones, and vascular systems are performing, and how quickly your brain is aging at a cellular and metabolic level. With one blood draw, we calculate your Cognitive Age, evaluate neural subsystem performance, and deliver clear, actionable insights. This empowers you to optimize memory, focus, and long-term cognitive health with real data — not guesswork.

Cognitive Age vs. Chronological Age

Your Chronological Age is the number of years you've lived. Your Cognitive Age, however, reveals how old your brain actually behaves based on how your memory, hormones, and vascular systems are functioning. Lumen's algorithm analyzes key neurological biomarkers (such as Vitamin B12, A1c, CRP, ApoB, and Testosterone) to derive your Cognitive Age — a more dynamic, personalized, and actionable measure of brain aging than DNA methylation clocks. Best of all, you can improve it.

We're not just measuring age, we're unlocking the biology behind healthspan. True longevity starts with knowing your body, system by system, before symptoms ever appear.

Why Lumen Health is Different?

Lumen gives you a comprehensive, system-wide view of how your brain is aging and functioning — not just in theory, but in practice. Through 7 distinct cognitive indexes, we decode your bloodwork to tell the story of your neuroinflammation, vascular health, metabolism, hormones, methylation, and more. This is not a generic wellness score. Each index is built on validated neurological biomarkers and calculated using brain-specific logic, allowing us to surface nuanced insights about how your cognition is performing today and how it is changing over time.

What makes Lumen different is its real-world actionability. While DNA methylation clocks provide abstract views of long-term cellular aging, they are slow to change and difficult to act on. The Brain Health Test uses real-time, clinically validated biomarkers to deliver insights you can influence — and track — within weeks. Our algorithm combines precision with clarity, providing a single Cognitive Age score alongside detailed subsystem scores that guide targeted interventions for brain health.

Cognitive age tells the real story of your health.

Cognitive Age vs Chronological Age

Your chronological age is simply how many years you've been alive. It's fixed and moves forward one day at a time.

Your cognitive age, on the other hand, reflects how well your brain is functioning compared to your peers. It answers a much more important question:

How old is your brain actually behaving?

Cognitive age is shaped by neuroinflammation, vascular health, metabolism, hormone balance, and lifestyle factors—not just time. Two people who are both 45 years old could have cognitive ages that differ by 10–15 years, depending on how resilient their brain systems are.

Cognitive Age	50.7	**Chronological Age**	47.0

+3.7 yr 😟

Your Cognitive Age is higher by 3.7 years compared to people your same age and sex.

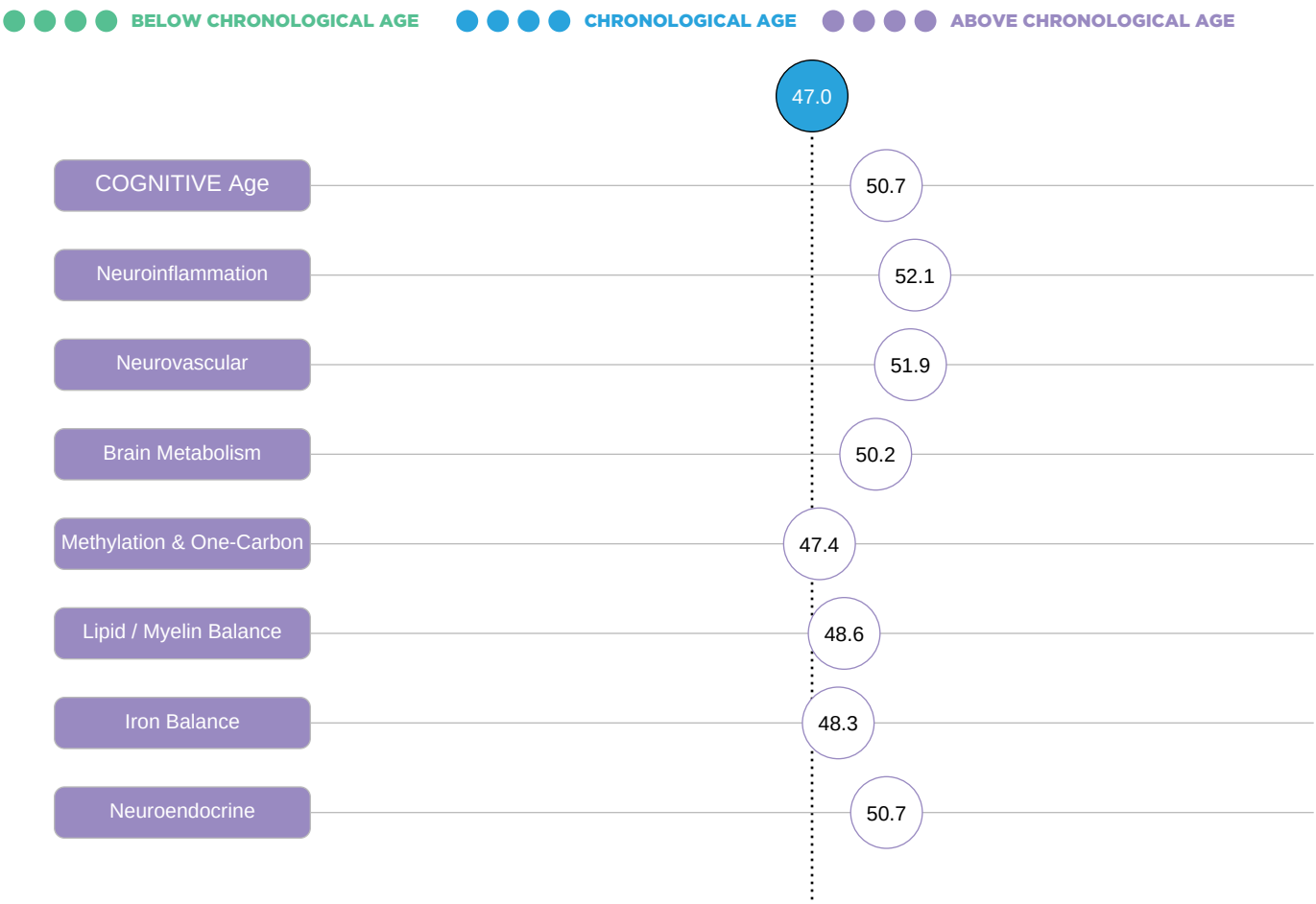
Why Biomarker-Based Cognitive Age Beats Methylation Tests

Biomarker-Based Testing	Methylation-Based Testing
Measures real-time physiology	Measures static epigenetic markers
Actionable and trackable	Hard to interpret or influence quickly
Organ-specific insights (e.g., liver, thyroid, metabolic)	Global age estimate with unclear organ signals
FDA-cleared, clinically used biomarkers	Research-grade, not standardized in clinics
Changes in weeks/months with lifestyle	Changes over years, slow to respond

The blood biomarkers we use (like B12, A1c, CRP, ApoB, Testosterone, and DHEA-S) tell us exactly how your brain, hormones, and vascular systems are performing right now. That makes them dynamic, actionable, and trackable.

Summary age of 8 distinct organ systems

Biological Systems Age



Brain health indices scored for 8 key processes

Neurological Systems Breakdown

SUBOPTIMAL NEEDS ATTENTION GOOD OPTIMAL

58.1
NEEDS ATTENTION

Neuroinflammation Index

Description

Captures inflammatory stress in the brain that accelerates neurodegeneration and cognitive decline.

Biomarkers

CRP, Ferritin, ApoB

Why it works

Chronic inflammation (CRP), iron dysregulation (ferritin), and elevated ApoB all contribute to oxidative stress, vascular inflammation, and neuronal injury.

33.9
SUBOPTIMAL

Neurovascular Index

Description

Evaluates blood lipid balance and vascular integrity relevant to cerebral perfusion and stroke risk.

Biomarkers

LDL, HDL, Total Cholesterol, ApoB

Why it works

Elevated LDL/ApoB raise vascular risk, while HDL and balanced cholesterol support healthy cerebral blood flow.

68.8
NEEDS ATTENTION

Brain Metabolism Index

Description

Assesses glucose and thyroid hormone function as key drivers of neuronal energy metabolism.

Biomarkers

Hemoglobin A1c, Free T3, BMI

Why it works

Neurons rely on glucose and thyroid hormones for ATP production; dysregulation reduces cognitive efficiency and brain resilience.

Methylation & One-Carbon Index

72.4

NEEDS ATTENTION

Description

Measures methylation capacity essential for DNA repair, neurotransmitter synthesis, and brain health.

Biomarkers

Vitamin B12, Hemoglobin A1c

Why it works

Adequate B12 supports methylation and homocysteine control, while A1c links glucose metabolism to epigenetic stability.

Lipid/Myelin Balance Index

77.5

GOOD

Description

Examines lipid substrate availability for myelin synthesis and neuronal membrane integrity.

Biomarkers

LDL, HDL, Total Cholesterol

Why it works

Both excessively low and high cholesterol disrupt neuronal membranes and myelin, while HDL provides neuroprotection.

Iron Balance Index

72.7

NEEDS ATTENTION

Description

Assesses iron storage balance as both deficiency and overload harm brain function.

Biomarkers

Ferritin, CRP

Why it works

Low ferritin impairs oxygen transport and myelination, while excess ferritin fuels oxidative stress, especially in an inflamed state.

Neuroendocrine Index

66.0

NEEDS ATTENTION

Description

Reflects neurosteroid and hormone support for cognition, mood, and brain plasticity.

Biomarkers

Total Testosterone, SHBG, Estradiol, DHEA-S

Why it works

Optimal testosterone, balanced estradiol, and sufficient DHEA-S support memory, synaptic repair, and neuroprotection.

61.4

NEEDS ATTENTION

Overall Cognitive Health Score

Description

Composite score integrating all brain-related indices to estimate overall cognitive resilience vs. age.

Biomarkers

All cognitive biomarkers across all indices

Why it works

Aggregating brain subsystem indices provides a holistic view of neurobiological aging and cognitive health trajectory.

Welcome to your health metrics

Clinical Biomarkers

Neuroinflammation

CRP

C-Reactive Protein (CRP)

Suboptimal

Description

Marker of systemic inflammation. Chronic elevation is linked to neurodegeneration and vascular disease.

3.8

(mg/L)

Ferritin

Ferritin

Suboptimal

Description

Reflects iron storage. Both deficiency and overload impair cognitive performance and brain health.

25

(ng/mL)

ApoB

Apolipoprotein B (ApoB)

Suboptimal

Description

Represents total atherogenic lipoprotein particle number; strongly linked to vascular brain aging.

135

(mg/dL)

Neurovascular Health

LDL

LDL Cholesterol, Calculated

Suboptimal

Description

Often called 'bad cholesterol.' Elevated levels increase cardiovascular risk.

165

(mg/dL)

HDL

HDL Cholesterol

Needs Attention

Description

The 'good cholesterol.' Higher levels are protective against heart disease.

38

(mg/dL)

Total Cholesterol

Cholesterol

Suboptimal

Description

Represents the total cholesterol in the blood, including LDL and HDL.

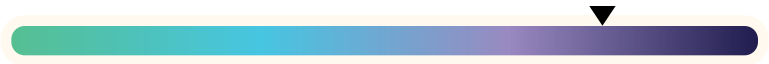
245

(mg/dL)

ApoB

Apolipoprotein B (ApoB)

Suboptimal



Description

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(mg/dL)

Brain Metabolism

Hemoglobin A1c

Hemoglobin A1c

Suboptimal

Description

Measures the average blood glucose levels over the past 2–3 months. Used to diagnose and monitor diabetes.

6.2

(%)

FT3

Free triiodothyronine (FT3)

Needs Attention

Description

Measures the free, biologically active T3 hormone. Helpful in evaluating hyperthyroidism.

2.4

(pg/mL)

Methylation & One-Carbon

B12

Vitamin B12

Optimal

Description

Essential for methylation, DNA synthesis, and myelin integrity. Low levels are linked to cognitive decline and neuropathy.

220

(pg/mL)

Hemoglobin A1c

Hemoglobin A1c

Suboptimal

Description

Measures the average blood glucose levels over the past 2–3 months. Used to diagnose and monitor diabetes.

6.2

(%)

Lipid / Myelin Balance

LDL

LDL Cholesterol, Calculated

Suboptimal

Description

Often called 'bad cholesterol.' Elevated levels increase cardiovascular risk.

165

(mg/dL)

HDL

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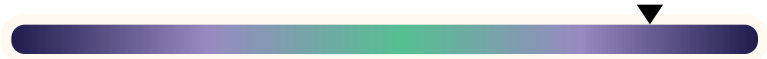

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245

(mg/dL)

Iron Balance

Ferritin

Ferritin

Suboptimal

Description

Reflects iron storage. Both deficiency and overload impair cognitive performance and brain health.

25

(ng/mL)

CRP

C-Reactive Protein (CRP)

Suboptimal

Description

Marker of systemic inflammation. Chronic elevation is linked to neurodegeneration and vascular disease.

3.8

(mg/L)

Neuroendocrine Function

Total Testosterone

Total Testosterone

Needs Attention

Description

Key neurosteroid supporting cognition, mood, and synaptic plasticity.

320

(ng/dL)

SHBG

Sex Hormone Binding Globulin (SHBG)

Suboptimal

Description

Regulates bioavailability of sex hormones including testosterone and estradiol, impacting brain function.

70

(nmol/L)

E2

Estradiol

Suboptimal

Description

Critical for synaptic plasticity, memory, and neuroprotection in men and women.

55

(pg/mL)

DHEA

DHEA-S

Needs Attention

Description

Adrenal neurosteroid that supports mood, cognition, and resilience to stress.

180

(µg/dL)

Based on your results

Your Next Test Will Guide

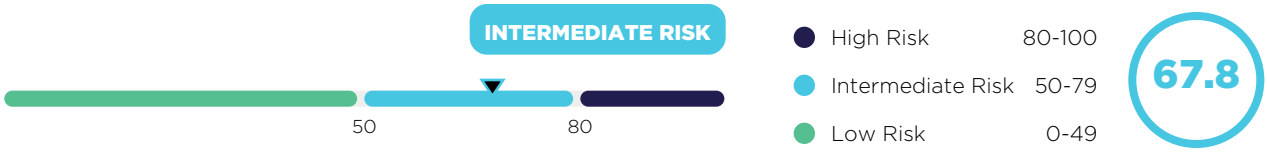
Thyroid Dysfunction (Hypo/Hyperthyroidism)

Why This Is Important

Disruptions in thyroid-stimulating hormone (TSH) or active thyroid hormones (T3, T4, FT3, FT4) can signal an overactive or underactive thyroid. This imbalance affects metabolism, mood, energy, and body temperature regulation. Early signs of thyroid dysfunction often go unnoticed, yet they contribute to fatigue, weight changes, and cardiovascular risk. Comprehensive thyroid panels allow for early detection and functional optimization of endocrine health.

Your Risk

Mild deviations in TSH or FT3/FT4 suggest subclinical thyroid dysfunction, often underdiagnosed but
correctable through root-cause intervention.

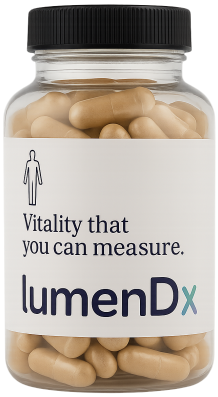


Calculated Score

Based on your results

We Suggest the Following

Basic Nutrients 2/Day



Why This Is Important

An all-encompassing daily multivitamin and multimineral formula.
Designed to fill nutritional gaps in your diet and support overall health.
Provides essential vitamins and minerals for daily wellness.
A convenient and effective way to ensure foundational nutrient intake.

Key Ingredients

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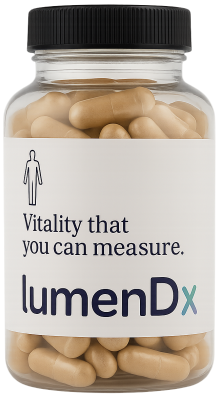
Vitamin D-5000



Why This Is Important

High-potency Vitamin D3 for robust bone health and a strong immune system.
This essential nutrient supports overall well-being and cellular function.
Ideal for those with insufficient sun exposure or dietary intake.
Contributes to mood regulation and cardiovascular health.

Key Ingredients

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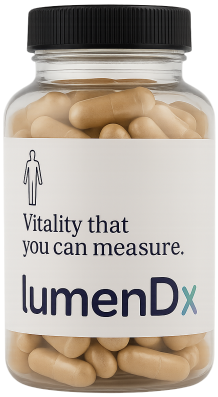
Super EPA



Why This Is Important

Premium fish oil concentrate for optimal brain function, heart health,
and flexible joints. It plays a crucial role in reducing systemic inflammation
and supports cognitive sharpness. Sourced for purity and potency,
this supplement is a cornerstone for general wellness.

Key Ingredients

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Creatine Monohydrate

Why This Is Important

A clinically proven supplement to enhance strength, power, and muscle performance.
Supports ATP regeneration for improved training capacity and recovery.
Well-researched for both athletic performance and cognitive health benefits.
NSF Certified for Sport, ensuring purity and safety with no banned substances.

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TAKE ME DIRECTLY TO MY CART!

Clinical & Scientific References

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