



EPIGENETIC HEALTH REPORT

# Your Body. Decoded.

A personalized map of your cellular health — the foundation of your Epigenetic Enhancement Therapy™ protocol, built around your unique biology.

**Jane Smith**

Age · 44    Sex · Female    Collected · Feb 23, 2026    Sample ID · DEQV94YQ2EJ258F4

# What is an Epigenetic Biomarker?

Epigenetic biomarkers are measurements derived from your DNA methylation patterns — the chemical tags that sit on top of your genome and regulate which genes are active. Unlike a one-off blood draw that captures a single moment, epigenetics captures the *trend line* of your biology.

## Traditional Blood Tests

A snapshot in time. Values shift with what you ate this morning, how you slept last night, and whether you just had a tough workout. Useful, but noisy.

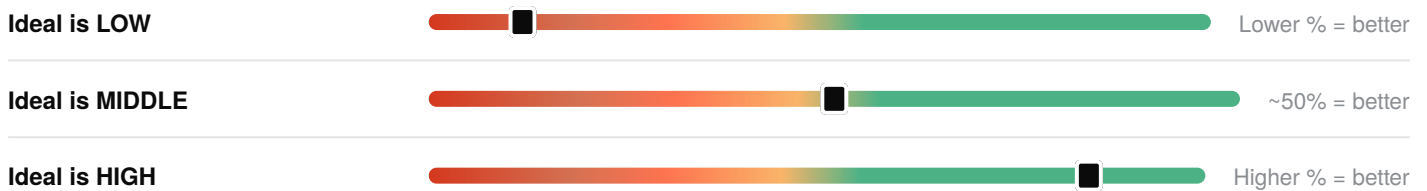
## Epigenetic Biomarkers

A reflection of your cellular state over weeks and months. Less noise, more signal — better at surfacing long-term trends that supplements and lifestyle changes can actually move.

*Your epigenome is the operating system running on top of your DNA. biohax reads that system and builds your Epigenetic Enhancement Therapy™ protocol around it.*

## HOW TO READ YOUR SCORES

Each biomarker is shown as a **percentile (0–100)** compared to a reference population of over 100,000 people. For each marker, the "ideal" zone depends on the biology — sometimes low is best, sometimes a middle range, sometimes high.



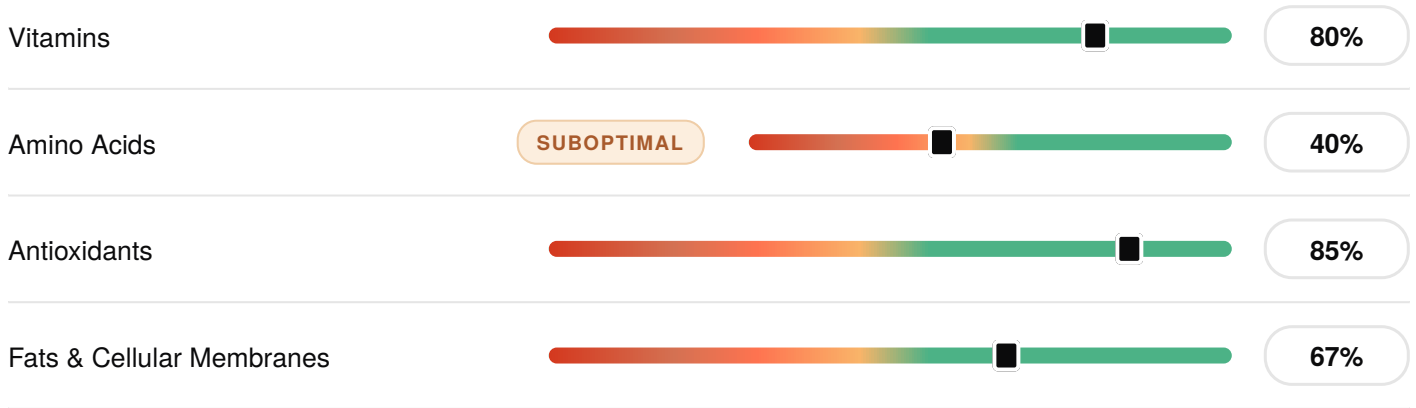
**Status Zones:**

- Critical (0–20)
- Suboptimal (21–40)
- Normal (41–100)

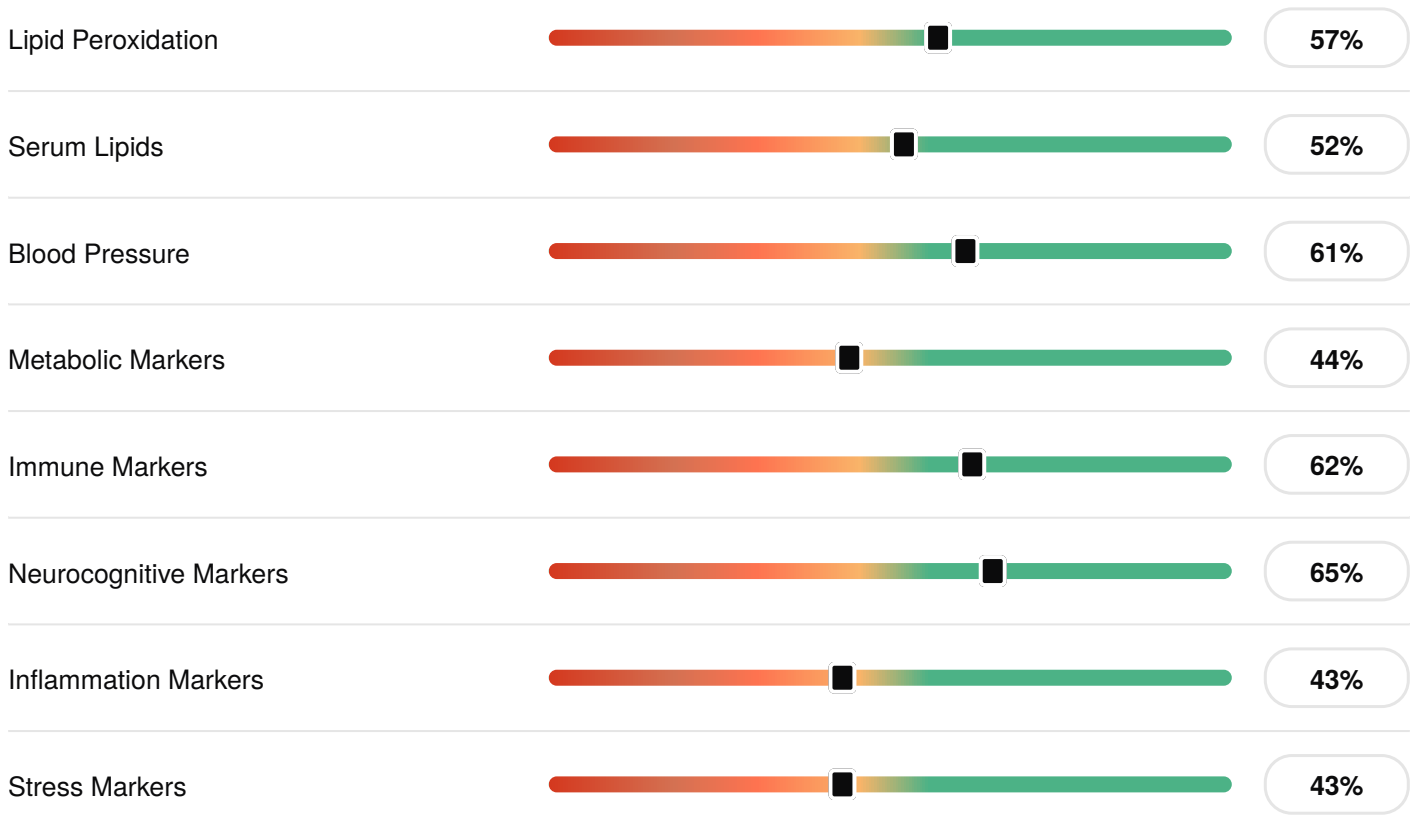
# Your Biomarker Overview

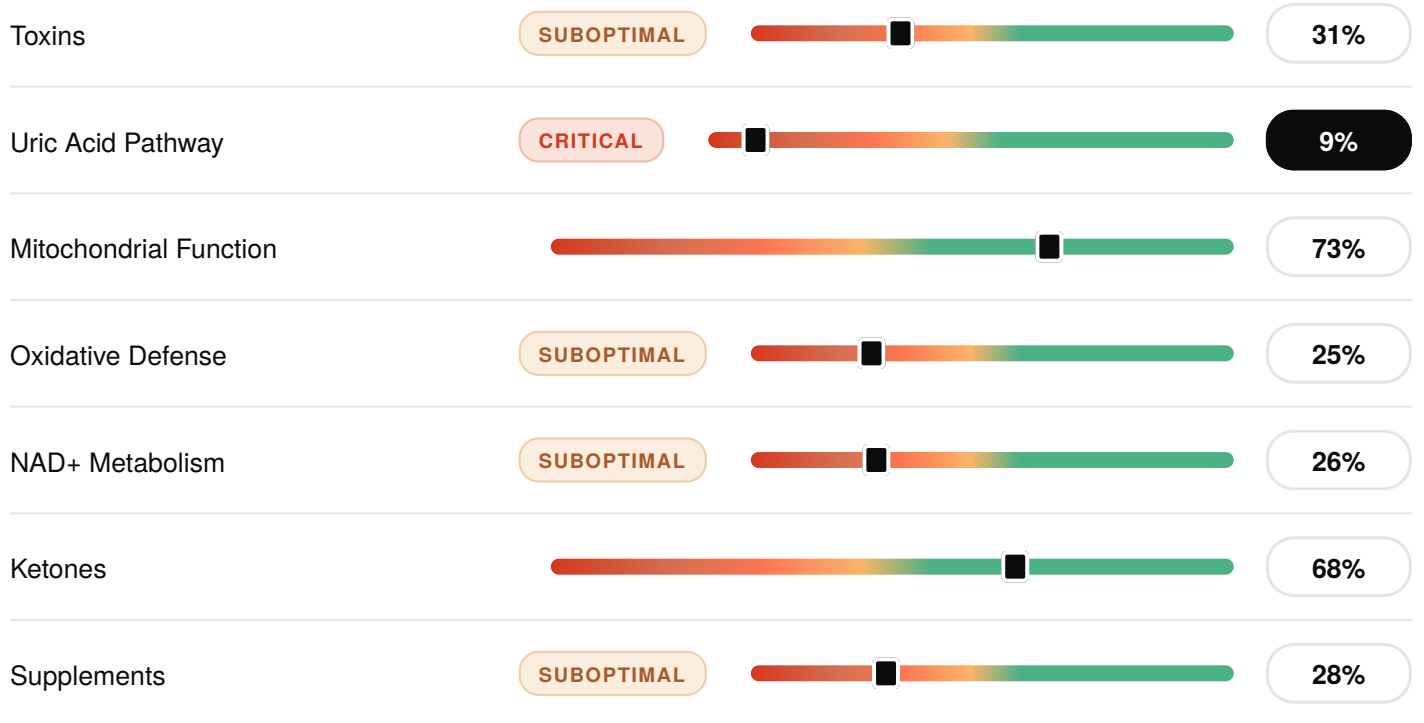
A high-level snapshot across nutrition and general health categories. Each category rolls up multiple individual biomarkers into a single score.

## NUTRITION



## GENERAL HEALTH MARKERS





# Your Biohax Protocol

Based on your epigenetic signals, here are the six biomarkers we're prioritizing — and the supplements we've selected to support them. Your personalized Biohax stack is built around these.

**How we build your stack:** Biohax formulates a personalized monthly supplement pack based on the biomarkers flagged below. Each ingredient is dosed according to your percentile, your age, and your sex — and adjusted every quarter when you retest.

**NEUROCOGNITIVE**

**Dopamine Metabolites**

Manage stress, prioritize sleep, moderate exercise, reduce caffeine.

L-theanine
Magnesium

**VITAMINS**

**Vitamin B3 (Nicotinamide)**

Caloric restriction and lower niacin intake help reduce elevated nicotinamide.

Quercetin
Resveratrol

**TOXINS**

**Pesticides**

Choose organic, increase fiber, hydrate, exercise regularly, support gut flora.

Activated Charcoal
Chlorella

**AMINO ACIDS**

**Citrulline**

Eat protein-rich foods, stay hydrated, maintain moderate exercise.

Citrulline Malate

**METABOLIC**

**Homocitrulline**

Kidney health: BP, A1c, weight management. Mediterranean or DASH diet. Limit charred meats.

Berberine
Omega 3s

**SERUM LIPIDS**

**LDL Particle Size**

Heart-healthy diet: fiber, omega-3s, healthy fats. Avoid trans fats and added sugars.

Red Yeast Rice
Omega 3s

# Detailed Biomarkers

The individual measurements behind each category. Flagged markers include personalized guidance; markers in range are shown with their values for tracking over time.

## VITAMINS

### Vitamin A — Retinol

33%

*Ideal range: middle*

Essential for vision, immune function, and cellular communication.

### Vitamin B2 — Riboflavin

96%

*Ideal range: middle*

A B-vitamin essential for energy production and cellular function.

### Vitamin B3 — Nicotinamide

**FLAGGED HIGH**

100%

*Ideal range: middle*

A form of vitamin B3 essential for NAD+ production. Low levels reduce NAD+ synthesis; high levels can inhibit sirtuins and NAD+ recycling.

**BIOHAX RECOMMENDATION**

Reduce niacin intake; consider caloric restriction windows.

[Quercetin](#) [Resveratrol](#) [Alpha-Ketoglutarate](#)

### Vitamin B5 — Pantothenic Acid

75%

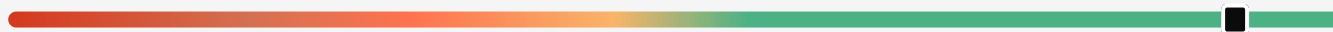
*Ideal range: middle*

Essential for CoA synthesis and energy metabolism.

### Vitamin B6 — Pyridoxine (P5P)

92%

Ideal range: middle



A coenzyme in amino acid metabolism and neurotransmitter synthesis.

### Vitamin B8 — Inositol

48%

Ideal range: middle



A carbohydrate involved in cell membrane formation and insulin signaling.

### Vitamin C — Ascorbic Acid 2-sulfate

98%

Ideal range: middle



Sulfated form of Vitamin C.

### Vitamin D — Cholecalciferol

80%

Ideal range: middle

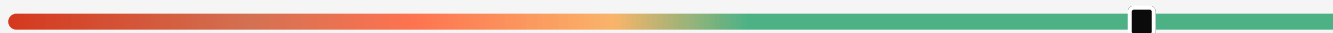


Important for bone health and immune function.

### Vitamin E — Alpha-tocopherol

85%

Ideal range: middle



Antioxidant form of Vitamin E.

### Choline — Total Cholines FLAGGED LOW

10%

Ideal range: middle



Essential nutrient for brain health and fat metabolism.

#### BIOHAX RECOMMENDATION

Consume eggs, liver, fish. Target dietary choline daily.

Choline CDP-choline

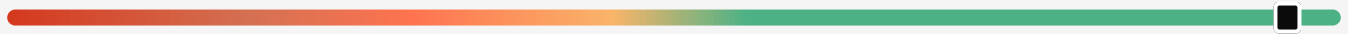
Alpha-GPC

Creatine

### Betaine

96%

*Ideal range: middle*



A methyl donor involved in liver function and cell hydration.

## AMINO ACIDS

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### Methionine

76%

*Ideal range: middle*



Essential amino acid involved in protein synthesis and detoxification processes.

### Cysteine

94%

*Ideal range: middle*



Amino acid involved in protein synthesis and antioxidant functions.

### S-methylmethionine

84%

*Ideal range: middle*

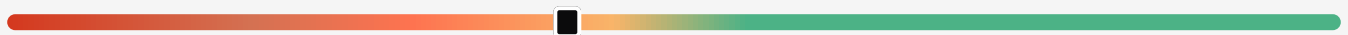


A methylated form of methionine involved in methylation reactions.

### Taurine

42%

*Ideal range: middle*



A sulfur-containing amino acid with antioxidant properties.

### Ergothioneine

87%

*Ideal range: middle*

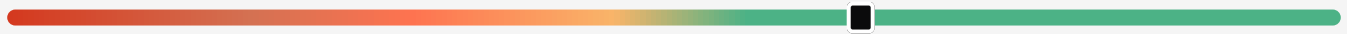


Powerful antioxidant involved in cellular protection and oxidative stress regulation.

## Glutamine

64%

Ideal range: middle



Essential for gut health and immune function.

## Arginine

24%

Ideal range: middle



Involved in protein synthesis and nitric oxide production.

## L-Aspartic Acid

69%

Ideal range: middle



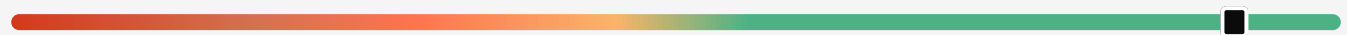
Non-essential amino acid important in the urea cycle and energy production.

## Valine — N-acetylvaline

FLAGGED HIGH

92%

Ideal range: middle



N-acetylvaline is involved in valine metabolism. High levels may reflect metabolic stress.

### BIOHAX RECOMMENDATION

Reduce valine and overall protein intake.

Alpha-ketoglutarate

L-citrulline

Probiotics

Magnesium

## Glycine

24%

Ideal range: middle

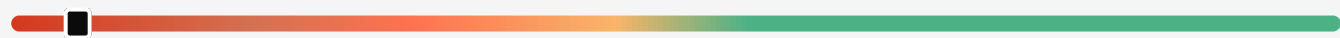


Amino acid involved in detoxification and sleep regulation.

### Histidine — N-acetylhistidine FLAGGED LOW

5%

Ideal range: middle



Derivative of histidine, important for metal ion binding and antioxidant functions.

#### BIOHAX RECOMMENDATION

Increase histidine-rich foods: meat, fish, dairy.

- Histidine
- Beta-alanine

### Citrulline FLAGGED LOW

1%

Ideal range: middle



Non-essential amino acid involved in nitric oxide production and vascular health.

#### BIOHAX RECOMMENDATION

Eat protein-rich foods, stay hydrated, maintain moderate exercise.

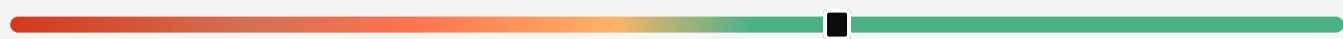
- Citrulline Malate

## ANTIOXIDANTS

### Lutein

62%

Ideal range: middle



Carotenoid with antioxidant properties; found in leafy greens.

### Carotene Diol

78%

Ideal range: middle



Plant-derived carotenoid; antioxidant properties.

### Acetyl-L-Carnitine

85%

Ideal range: middle



Involved in fatty acid metabolism and mitochondrial energy production.

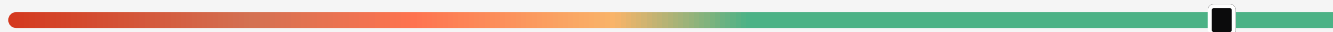
## FATS & CELLULAR MEMBRANES

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### Omega-3

91%

*Ideal range: middle*

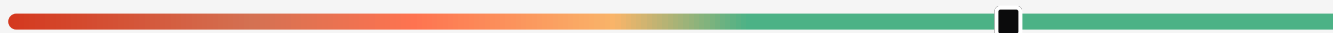


Polyunsaturated fatty acid with anti-inflammatory properties.

### DHA — Docosahexaenoate

75%

*Ideal range: middle*

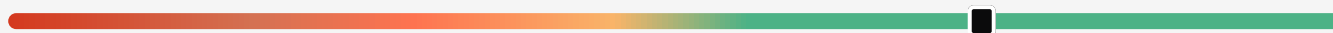


Omega-3 fatty acid critical for brain health and inflammation regulation.

### EPA — Eicosapentaenoate

73%

*Ideal range: middle*



Omega-3 fatty acid with anti-inflammatory effects, found in fish oils.

### Omega-6

72%

*Ideal range: middle*



Polyunsaturated fatty acid supporting cell membrane integrity.

## METABOLIC MARKERS

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### HgbA1c

55%

*Ideal range: low*



Measure of blood sugar over time; indicative of glucose control.

### Glucose

68%

*Ideal range: low*



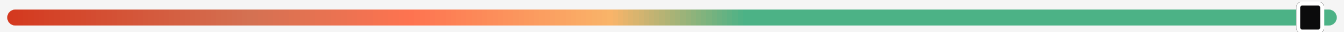
Blood sugar level, related to diabetes risk.

## Homocitrulline

FLAGGED HIGH

98%

Ideal range: low



Marker of protein damage from nitrogen waste, often elevated in kidney disease.

### BIOHAX RECOMMENDATION

Control BP, A1c, weight; Mediterranean or DASH diet; hydrate; limit charred and processed meats.

Berberine

Omega 3s

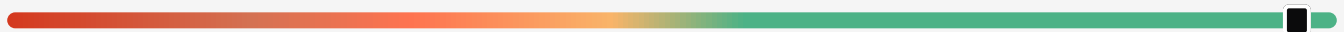
## TOXINS

## PFOS — Forever Chemicals

FLAGGED HIGH

97%

Ideal range: low



Synthetic chemical found in nonstick cookware, water-repellent fabrics, stain-resistant treatments.

### BIOHAX RECOMMENDATION

Strict avoidance of contaminated water and food.

Activated Charcoal

NAC

Glutathione

## Glyphosate — Pesticides

FLAGGED HIGH

100%

Ideal range: low



Broad-spectrum herbicide commonly used in agriculture.

### BIOHAX RECOMMENDATION

Choose organic foods, increase fiber, hydrate, exercise, support gut health with probiotics.

Activated Charcoal

Chlorella

Milk Thistle

NAC

Glutathione

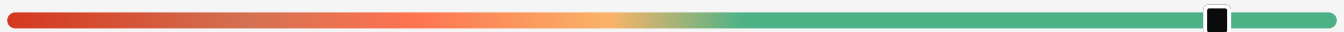
## URIC ACID PATHWAY

## Urate

FLAGGED HIGH

91%

Ideal range: middle



Antioxidant byproduct of purine metabolism. High levels may indicate gout, CVD, or metabolic risk.

## Allantoin

FLAGGED HIGH

98%

Ideal range: low



Formed from oxidation of uric acid; serves as a marker of oxidative stress.

### BIOHAX RECOMMENDATION

Antioxidant-rich diet (berries, greens); avoid purine-rich foods; hydrate; moderate exercise.

Quercetin

NAC

Magnesium

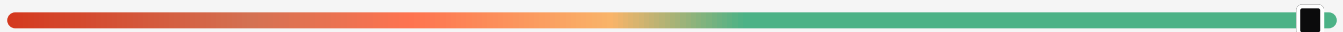
## NEUROCOGNITIVE MARKERS

## Dopamine 3-O-sulfate

FLAGGED HIGH

98%

Ideal range: middle



Dopamine metabolite involved in neurotransmitter regulation and detoxification.

### BIOHAX RECOMMENDATION

Manage stress, prioritize sleep, moderate exercise, reduce stimulants.

L-theanine

Magnesium

Ashwagandha

NAC

Omega-3s

## Quinolate — Brain Inflammation Marker

50%

Ideal range: low



Metabolite in the kynurenine pathway, linked to neuroinflammation.

## NAD+ METABOLISM

## Nicotinamide

FLAGGED HIGH

100%

Ideal range: middle



Vitamin B3 precursor essential for NAD+. High levels can inhibit sirtuins and NAD+ recycling.

### BIOHAX RECOMMENDATION

Caloric restriction and reduced niacin intake help lower nicotinamide.

Quercetin

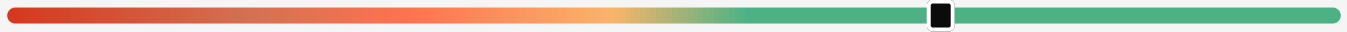
Resveratrol

Alpha-Ketoglutarate

## Nicotinamide Riboside (NR)

70%

*Ideal range: middle*



NAD+ precursor. Low levels reduce NAD+ synthesis.

**About this report.** This report is for educational purposes and is not intended to diagnose, treat, cure, or prevent any disease. Supplement recommendations do not replace medical advice. Always consult your physician before starting any new supplement regimen, especially if you take prescription medications or have existing health conditions. Percentile rankings are derived from a reference cohort of more than 100,000 individuals. Epigenetic Enhancement Therapy™ is a trademark of biohax, Inc. © biohax, Inc. All rights reserved.