Generation Lab

MALE VERSION

Report Date | 2026-05-27

SystemAge™ Report

for 21 organs & systems

NAME
Lev Ferreva

KIT ID
GLABDEM4GM

DATE OF BIRTH
1979-07-10

COLLECTED
2025-08-19

METHYLATION DETECTION
POWERED BY ILLUMINA®
GL260K-M CUSTOMIZED CHIP
FOR GENERATION LAB

BIOLOGICAL AGE MEASUREMENT
COMPUTED BY PROPRIETARY ALGORITHM
NOISE BAROMETER™ (V3.0.0)
BY GENERATION LAB

Generation Lab

FEMALE VERSION

Report Date | 2026-05-27

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for 21 organs & systems

NAME
Eva Lasting

KIT ID
GLABDEM4GF

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About SystemAge™ Test

Before diving into your results, here's a quick dose of science to help you make sense of what's ahead. For more information, please visit our science page (www.generationlab.com/science).

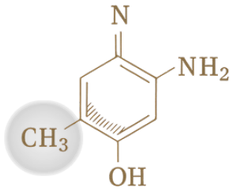
The Science Behind Your Test

Dr. Irina Conboy, CSO and co-founder of Generation Lab, is a world-renowned expert in longevity science and regenerative medicine. With over two decades of groundbreaking research, 180+ peer-reviewed publications and 4000+ citations, she has pioneered discoveries on how biological aging can be measured and potentially reversed. Through Generation Lab, Dr. Conboy brings cutting-edge epigenetic science from the lab to your hands, making advanced biological age testing accessible and actionable.

What We Measure

Your DNA is like your body's hardware — it doesn't change with age. Traits like eye color, hair color, and ethnicity stay constant. But the software of your body — gene expression does change. Lifestyle, stress, and environment all influence how your genes are turned on or off through processes like DNA methylation at CpG sites. These chemical markers shape how your cells function and age over time.

Dr. Irina Conboy's two decades of aging research revealed that aging isn't just about "more" or "less" methylation. It's about noise in gene expression — the drift of methylation patterns away from healthy baselines. We call this BioNoise™, your body's version of entropy.



methylated cytosine

How We Measure

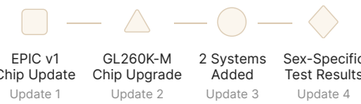
Built on decades of research, we analyze 460+ handpicked aging biomarkers across 21 organ systems. Your blood sample is processed in our CLIA-certified laboratory using a Generation Lab custom Illumina methylation microarray chip, capturing the precise methylation patterns that reflect how your body is aging.

CpG site on DNA strand

What's New

See Appendix for Full Updates →

Our science evolves. Since launching, we've upgraded our chip, expanded our biomarker panel, and added sex-specific analysis. Because of this, results between your tests may shift, sometimes meaningfully without your biology changing. **A surprising number doesn't always mean something's wrong**. If you have questions about a result, get in touch with us.



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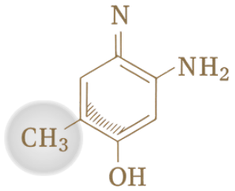

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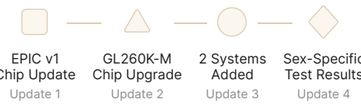
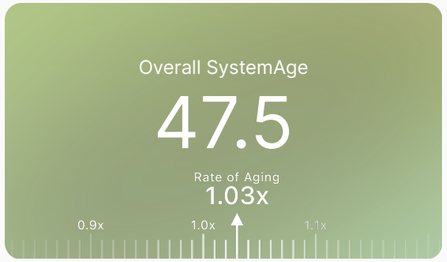


Your Overall Health

460+ BioMarkers

Your Overall Health section provides a snapshot of your body's biological state. While each body system ages at its own pace, this section offers an integrated view of how your body is performing as a whole. For your personalized recommendations on how to improve your health holistically, go to page 9.

Your Overall SystemAge



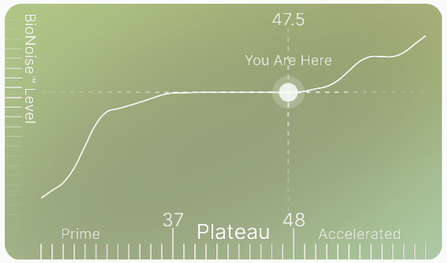
Your Overall SystemAge is **47.5** years, which is **1.4** years older than your calendar age of 46.1. This means your body has been aging faster than expected, at a rate of **1.03x** the calendar speed. This indicates your body is performing in the **normal** range for your age group.

Importantly, your rate of aging is not fixed — it's a reflection of how your lifestyle, environment, and internal physiology are interacting over time. With the right interventions, you can slow down your aging process and improve long-term health. See page 9 for your personalized recommendations.

Overall SystemAge™ refers to your body's biological age. Your overall SystemAge is based on analysis of 460+ CpGs linked to aging-related epigenetic sites to measure the pace of aging from DNA methylation.

Rate of Aging is the ratio of your biological age over your calendar age — it informs the speed your body is aging at up to the point of the test.

Overall Male Aging Entropy Curve



Your results suggest that you are in the Plateau stage for overall biological health. This means your body is maintaining stable system performance with stable biological noise levels and consistent biological functions. While no longer at peak efficiency, your body demonstrates steady resilience and effective homeostasis with controlled biological variability.

This is a solid foundation for your longevity journey!

The Overall Male Aging Entropy Curve reflects the common aging trajectory among healthy males. The curve is plotted based on Generation Lab's extensive dataset of over several million healthy data points. Curves for individual systems are different from each other, indicating distinctive aging characteristics of different bodily functions.

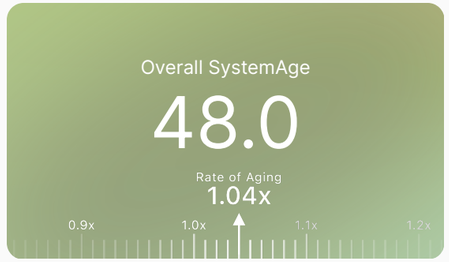
BioNoise™ reflects the chaos in your molecular systems — variability in gene expression that increases with age. Rising BioNoise can signal early aging or disease risk — even when labs look normal.

Your Overall Health

460+ BioMarkers

Your Overall Health section provides a snapshot of your body's biological state. While each body system ages at its own pace, this section offers an integrated view of how your body is performing as a whole. For your personalized recommendations on how to improve your health holistically, go to page 9.

Your Overall SystemAge



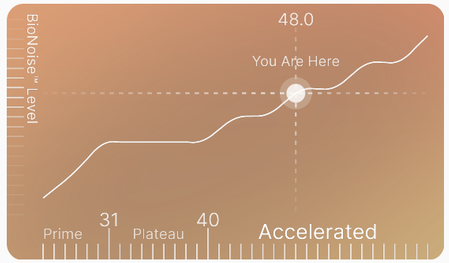
Your Overall SystemAge is **48.0** years, which is **1.9** years older than your calendar age of 46.1. This means your body has been aging faster than expected, at a rate of **1.04x** the calendar speed. This indicates your body is performing in the **normal** range for your age group.

Importantly, your rate of aging is not fixed — it's a reflection of how your lifestyle, environment, and internal physiology are interacting over time. With the right interventions, you can slow down your aging process and improve long-term health. See page 9 for your personalized recommendations.

Overall SystemAge™ refers to your body's biological age. Your overall SystemAge is based on analysis of 460+ CpGs linked to aging-related epigenetic sites to measure the pace of aging from DNA methylation.

Rate of Aging is the ratio of your biological age over your calendar age — it informs the speed your body is aging at up to the point of the test.

Overall Female Aging Entropy Curve



Your results suggest that you are in the Accelerated aging stage for overall biological health. This means your body is showing signs of faster decline in system performance with increased biological noise levels, indicating growing biological irregularities or inefficiencies. The elevated biological noise suggests more random fluctuations and decreased precision in cellular processes.

This progression aligns with typical aging patterns for your chrono-age and represents a natural part of the aging process.

The Overall Female Aging Entropy Curve reflects the common aging trajectory among healthy females. The curve is plotted based on Generation Lab's extensive dataset of over several million healthy data points. Curves for individual systems are different from each other, indicating distinctive aging characteristics of different bodily functions.

BioNoise™ reflects the chaos in your molecular systems — variability in gene expression that increases with age. Rising BioNoise can signal early aging or disease risk — even when labs look normal.

Your Trends Over Time

Your Overall Health section provides a snapshot of your body's biological state. While each body system ages at its own pace, this section offers an integrated view of how your body is performing as a whole.

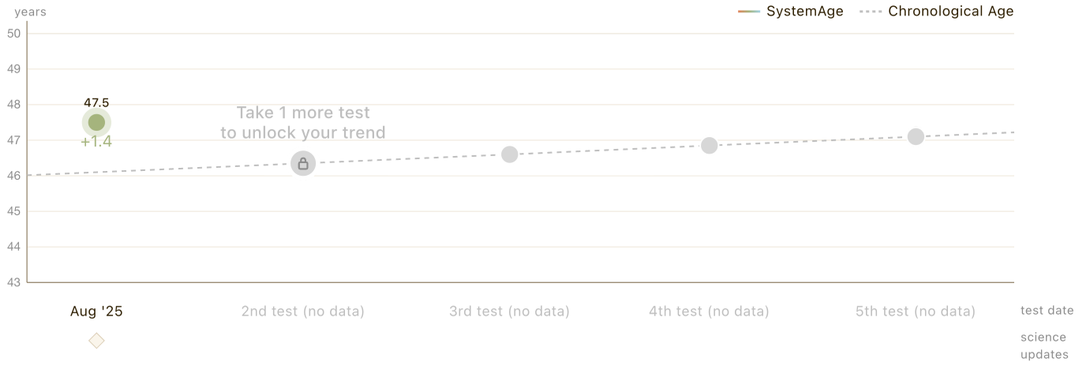
Total tests taken

1

What we're seeing

Your body is currently aging 1.4 years faster than your calendar age. This baseline is the foundation for tracking how your body responds over time. Your **2nd test** will show the direction of change, and by your **3rd**, you'll have a meaningful trend.

Trend for Your Overall Health



Age Difference The solid line is your biological age; the dashed line is your calendar age. Below the dashed line means you're aging slower than expected. The +/- number at each dot is the gap between the two.

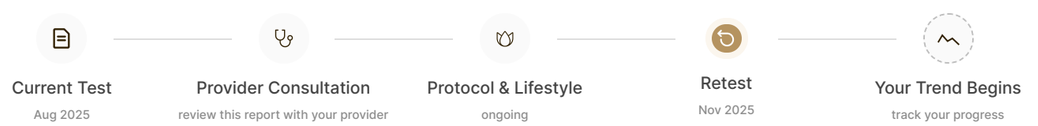
Science Updates Please go to Appendix to view full version updates information.

Test Date It's when your sample was collected, reflecting your biology at that moment. We capture this from your online collection confirmation (when you click "I've collected my sample") or from your return shipping date as a fallback.

Recommended Testing Cycle

Next Test: Nov 2025

We recommend retesting every 3 months to track your health progress. Our research shows this is the ideal interval to detect meaningful changes in your SystemAge. Depending on your specific plan, you may retest more or less frequently.



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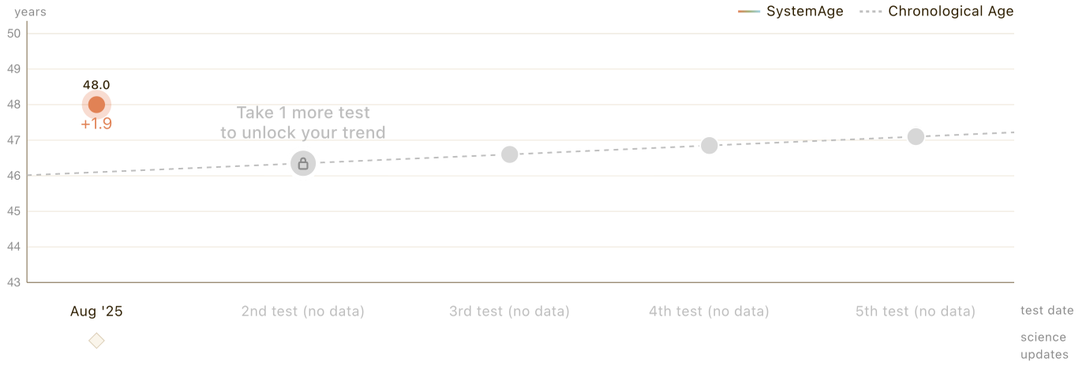

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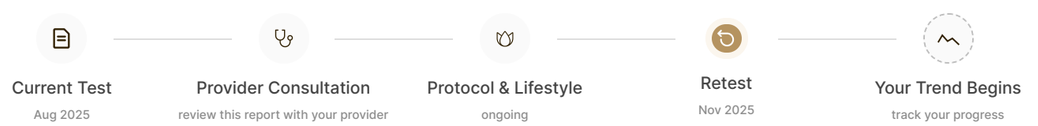


Biological Ages of 21 Systems

optimal normal attention

Brain & Nervous System

Brain Health and Cognition
49.1 1.06x rate of aging

Auditory System
48.6 1.05x rate of aging

Nervous System
49.6 1.08x rate of aging

Heart & Circulation

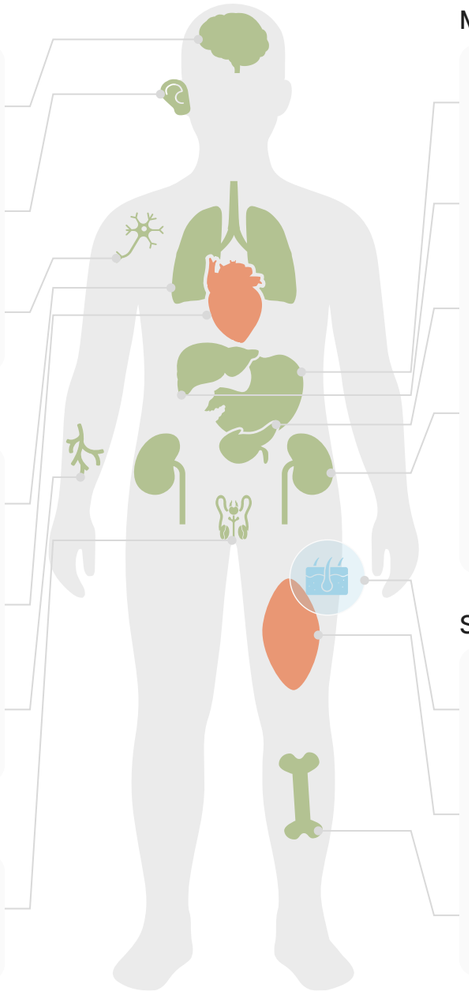
Respiratory System (Lung)
47.7 1.03x rate of aging

Cardiac System (Heart)
53.0 1.15x rate of aging

Blood and Vascular System
48.4 1.05x rate of aging

Reproductive Health

Male Reproductive System (Testes)
49.2 1.07x rate of aging



Metabolic Health

Digestive System
46.8 1.01x rate of aging

Hepatic System (Liver)
43.4 0.94x rate of aging

Blood Sugar and Insulin Control
45.1 0.98x rate of aging

Urinary System
47.2 1.02x rate of aging

Metabolism
47.4 1.03x rate of aging

Structural Health

NEW
Skin Health (Incl. Hair & Nails)
39.2 0.85x rate of aging

Muscular System
51.2 1.11x rate of aging

Skeletal System (Bone)
48.5 1.05x rate of aging

Cellular & Immune Defense

Immune System
48.7 1.06x rate of aging

NEW
Mitochondria Health
50.7 1.10x rate of aging

Fibrosis (Scar Tissue Formation)
46.5 1.01x rate of aging

Inflammatory Regulation
49.1 1.06x rate of aging

Tissue Regeneration
45.4 0.98x rate of aging

Oncogenesis (Cell Mutation)
47.9 1.04x rate of aging

NOTE on Muscular System: Muscular SystemAge can spike temporarily after heavy training, when muscles mid-repair register as accelerated aging. See page 20 →

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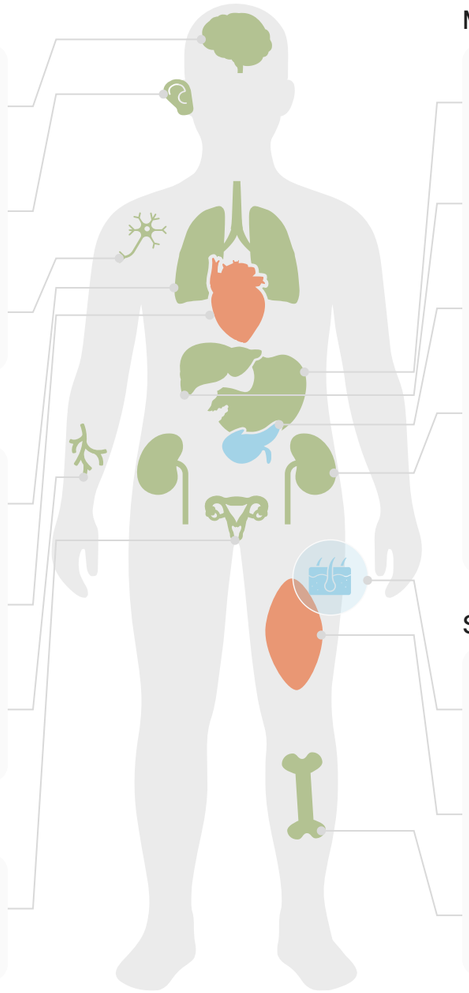
50.5 1.10x rate of aging

Cardiac System (Heart)
53.0 1.15x rate of aging

Blood and Vascular System
49.2 1.07x rate of aging

Reproductive Health

Female Reproductive System (Ovaries & Uterus)
48.5 1.05x rate of aging



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Bar Graph Comparison

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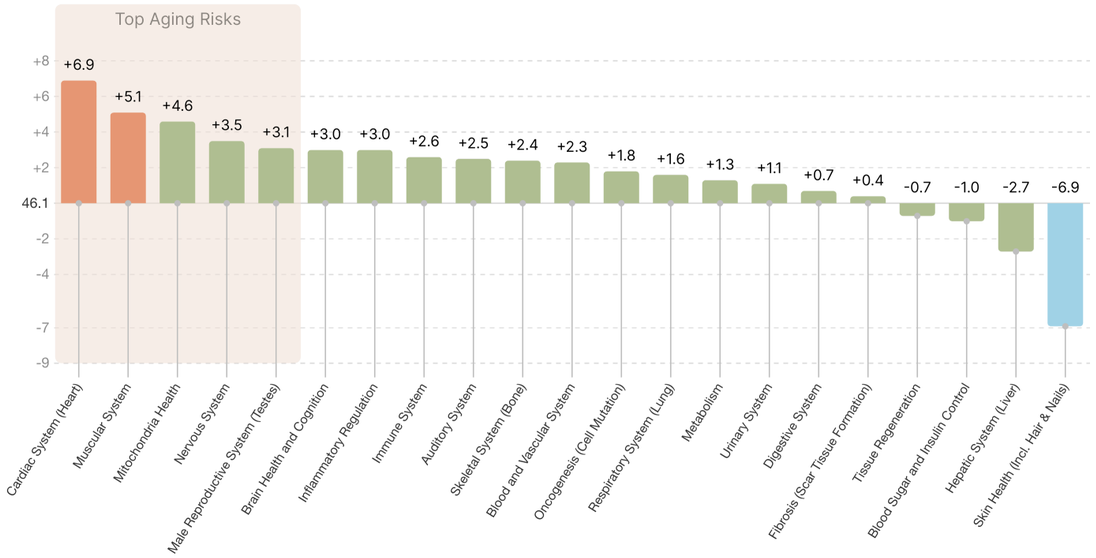

The Solid Line in the bar graph refers to your chronological age at the time of the test.

Top Aging Risks are the five body systems contributing most to your overall aging. By focusing on these areas first, you can take the most effective steps to improve your overall health. See page 18 for more details.

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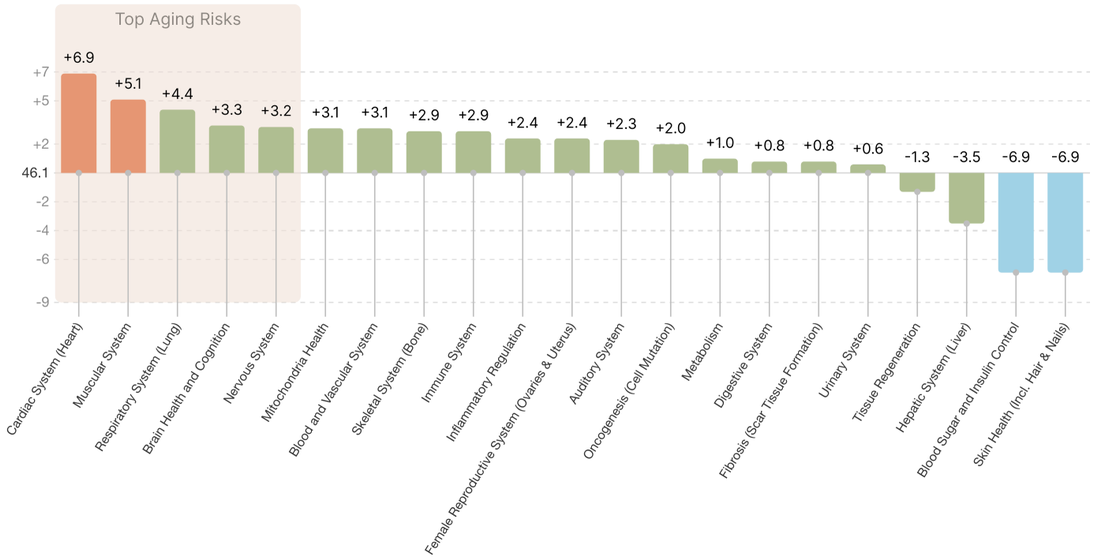

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What's Next?

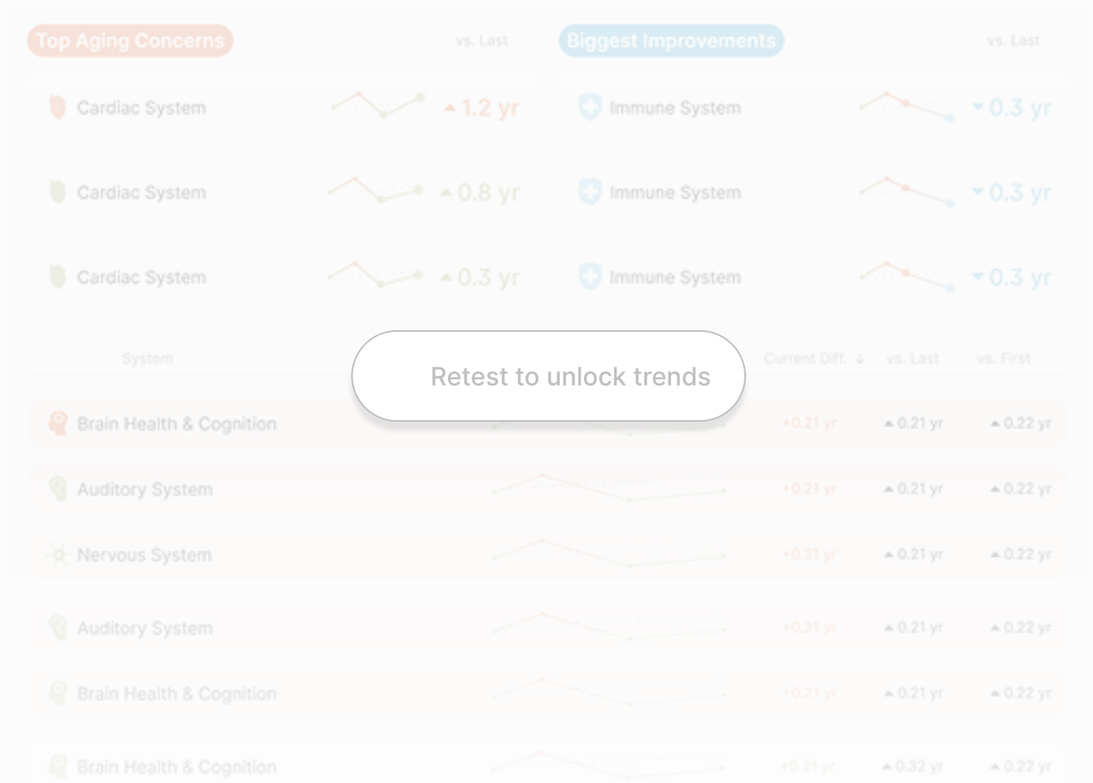
See how your body responds.
Retest in 3 months.

Your biological age isn't fixed — it shifts in response to lifestyle, environment, and the work you put in. We recommend retesting every 3 months to track real progress against the recommendations in this report.

Preview

Trend for Your 21 Systems

After your next test, this page will show you exactly which systems improved and which ones need more attention — system by system, test by test. Here's a preview of what you'll see.



What's Next? Kit ID: GLABDEM4GF

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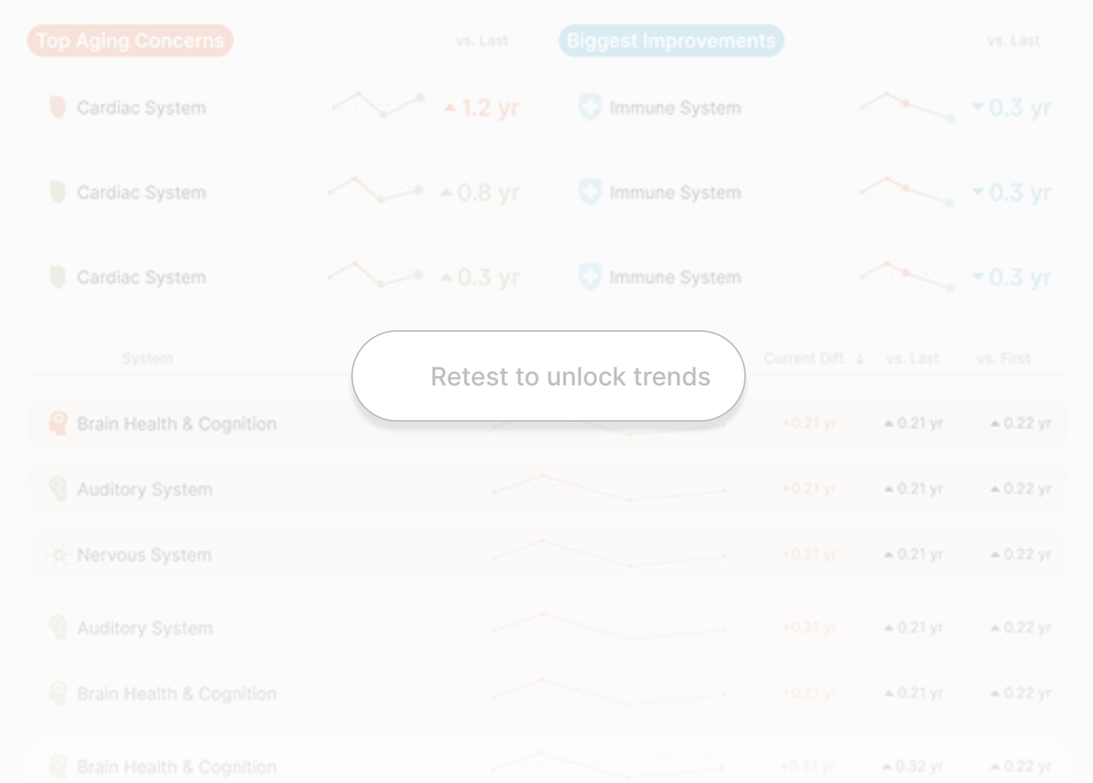

Your Best 3 Systems

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Skin Health

pg. 58

39.2 years old 0.85x rate of aging optimal

Your Skin Health is biologically 6.9 years younger than your chronological age, making it your best system.

A great skin health may demonstrate strong collagen production and effective barrier function, likely from sun protection, proper hydration, and balanced nutrition. Healthy skin maintains elasticity, moisture retention, and efficient wound healing throughout life.

Superb! You've optimized your Skin Health — let's sustain this success!

Hepatic System

pg. 56

43.4 years old 0.94x rate of aging normal

Your Hepatic System is biologically 2.7 years younger than your chronological age, making it your 2nd best system.

A good liver function shows effective detoxification and metabolic processing, reflecting moderate alcohol use, healthy diet, and toxin avoidance. Optimal liver health supports nutrient metabolism, hormone regulation, and natural detoxification processes.

Well done! Let's sustain and build upon your Hepatic System health.

Blood Sugar and Insulin Control

pg. 54

45.1 years old 0.98x rate of aging normal

Your Blood Sugar and Insulin Control is biologically 1.0 years younger than your chronological age, making it your 3rd best system.

A good blood sugar regulation indicates excellent insulin sensitivity and glucose control, likely from balanced eating, regular activity, and healthy weight. Stable blood sugar prevents cellular damage and reduces risk of metabolic complications.

You're doing well! There's opportunity to further optimize your Blood Sugar and Insulin Control.

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A great blood sugar regulation indicates excellent insulin sensitivity and glucose control, likely from balanced eating, regular activity, and healthy weight. Stable blood sugar prevents cellular damage and reduces risk of metabolic complications.

Fantastic job! Let's keep up the good work on your Blood Sugar and Insulin Control!

Hepatic System

pg. 54

42.6 years old 0.92x rate of aging normal

Your Hepatic System is biologically 3.5 years younger than your chronological age, making it your 3rd best system.

A good liver function shows effective detoxification and metabolic processing, reflecting moderate alcohol use, healthy diet, and toxin avoidance. Optimal liver health supports nutrient metabolism, hormone regulation, and natural detoxification processes.

Let's continue working on this and potentially improve your Hepatic System!

Your Top 5 Aging Risks

These 5 systems represent your greatest health vulnerabilities — they are the leading causes of your potential disease risks. By focusing on these priority areas, you can prevent health problems from developing and most effectively slow your aging process. For your personalized recommendations to improve these systems, go to Page 9.

Cardiac System

pg. 18

53.0 years old 1.15x rate of aging need attention

Your Cardiac System is your No.1 aging risk, 6.9 years older than your biological age.

Sedentary lifestyle, high-sodium diets, chronic stress, smoking, and excessive alcohol consumption strain heart muscle and disrupt rhythm regulation. Poor sleep quality and social isolation further accelerate cardiovascular aging and reduce heart function efficiency.

Muscular System

pg. 20

51.2 years old 1.11x rate of aging need attention

Your Muscular System is your No.2 aging risk, 5.1 years older than your biological age.

Physical inactivity, inadequate protein intake, and chronic inflammation accelerate muscle loss and weakness. Poor sleep, hormonal imbalances, and excessive alcohol impair muscle protein synthesis and recovery, leading to progressive loss of strength and functional capacity.

Mitochondria Health

pg. 22

50.7 years old 1.10x rate of aging normal

Your Mitochondria Health is your No.3 aging risk, despite its normal health status.

Sedentary lifestyle, chronic stress, poor sleep, and processed food impair mitochondrial function and energy production. Excessive caloric intake, environmental toxins, and chronic inflammation reduce mitochondrial density, increase oxidative stress, and accelerate cellular aging.

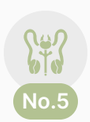
Nervous System

pg. 24

49.6 years old 1.08x rate of aging normal

Your Nervous System is your No.4 aging risk, despite its normal health status.

Chronic stress, neurotoxin exposure, vitamin B12 deficiency, and excessive alcohol consumption damage nerve cells and myelin sheaths. Poor sleep, sedentary lifestyle, and uncontrolled blood sugar accelerate neural degeneration, impairing nerve signal transmission and coordination.



Male Reproductive System

pg. 26

49.2 years old 1.07x rate of aging normal

Your Male Reproductive System is your No.5 aging risk, despite its normal health status.

Chronic stress, obesity, smoking, and excessive alcohol disrupt testosterone production and sexual function. Endocrine disruptors, poor nutrition, sedentary lifestyle, and excessive heat exposure accelerate male reproductive aging, affecting sperm quality, libido, and hormonal regulation.

Your Top 5 Aging Risks

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53.0 years old 1.15x rate of aging need attention

Your Cardiac System is your No.1 aging risk, 6.9 years older than your biological age.

Sedentary lifestyle, high-sodium diets, chronic stress, smoking, and excessive alcohol consumption strain heart muscle and disrupt rhythm regulation. Poor sleep quality and social isolation further accelerate cardiovascular aging and reduce heart function efficiency.

Muscular System

pg. 20

51.2 years old 1.11x rate of aging need attention

Your Muscular System is your No.2 aging risk, 5.1 years older than your biological age.

Physical inactivity, inadequate protein intake, and chronic inflammation accelerate muscle loss and weakness. Poor sleep, hormonal imbalances, and excessive alcohol impair muscle protein synthesis and recovery, leading to progressive loss of strength and functional capacity.

Respiratory System

pg. 22

50.5 years old 1.10x rate of aging normal

Your Respiratory System is your No.3 aging risk, despite its normal health status.

Smoking, air pollution exposure, sedentary lifestyle, and poor posture reduce lung capacity and efficiency. Chronic respiratory infections, occupational hazards, and obesity further compromise breathing mechanics and oxygen exchange, accelerating decline in respiratory function.

Brain Health and Cognition

pg. 24

49.4 years old 1.07x rate of aging normal

Your Brain Health and Cognition is your No.4 aging risk, despite its normal health status.

Chronic stress, poor sleep quality, social isolation, and physical inactivity accelerate cognitive decline and neural deterioration. High sugar intake, excessive alcohol, and lack of mental stimulation reduce neuroplasticity and impair memory, concentration, and problem-solving.

Nervous System

pg. 26

49.3 years old 1.07x rate of aging normal

Your Nervous System is your No.5 aging risk, despite its normal health status.

Chronic stress, neurotoxin exposure, vitamin B12 deficiency, and excessive alcohol consumption damage nerve cells and myelin sheaths. Poor sleep, sedentary lifestyle, and uncontrolled blood sugar accelerate neural degeneration, impairing nerve signal transmission and coordination.

Personalized Preliminary Action Plan

Powered by Generation Lab Recommender Engine™

Published by Generation Lab

The following recommendations are generated automatically by the Generation Lab Recommender Engine™ and have not been manually reviewed. They are intended for informational purposes only. Incorrect use of supplement, fitness, medication and therapy can lead to serious health consequences. Please consult a physician before taking any actions.

Medication for you

> BEFORE YOU READ ON
>
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Acarbose

Effects may vary between individuals. Consult a provider before use to avoid potential risks.

Acarbose slows carbohydrate absorption in the gut, reducing post-meal glucose spikes and insulin demand. It improves glycemic control and has shown longevity benefits in preclinical studies.

Why Recommend This for You?

No.1

Your Cardiac System
Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Acarbose provides cardiovascular benefits through improved blood sugar control and reduced oxidative stress. It can reduce cardiovascular risk factors associated with diabetes and metabolic dysfunction.

Your Inflammatory Regulation
49.1 years old 1.06x rate of aging

Through improved blood sugar control, acarbose reduces chronic inflammation associated with high glucose levels. It can lower inflammatory markers and oxidative stress throughout the body.

Your Metabolism
47.4 years old 1.03x rate of aging

The medication improves metabolic health through glucose regulation and may promote longevity through dietary restriction-like effects. It enhances metabolic efficiency and reduces metabolic stress on the body.

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Your Cardiac System
Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Acarbose provides cardiovascular benefits through improved blood sugar control and reduced oxidative stress. It can reduce cardiovascular risk factors associated with diabetes and metabolic dysfunction.

Your Inflammatory Regulation
48.5 years old 1.05x rate of aging

Through improved blood sugar control, acarbose reduces chronic inflammation associated with high glucose levels. It can lower inflammatory markers and oxidative stress throughout the body.

Your Metabolism
47.1 years old 1.02x rate of aging

The medication improves metabolic health through glucose regulation and may promote longevity through dietary restriction-like effects. It enhances metabolic efficiency and reduces metabolic stress on the body.

Urolithin A

Effects may vary between individuals. Consult a provider before use to avoid potential risks.

Urolithin A enhances mitochondrial health by stimulating mitophagy, the removal of dysfunctional mitochondria. It improves muscle endurance, metabolic efficiency, and cellular vitality.

Why Recommend This for You?

No.1

Your Cardiac System

Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

This metabolite supports heart health by improving cardiac muscle cell energy production and reducing oxidative stress. Cardiovascular endurance and heart disease protection experience notable enhancement.

No.2

Your Muscular System

Your Top 2 Aging Factor 51.2 years old 1.11x rate of aging

Urolithin A enhances muscle function by promoting mitochondrial renewal and improving muscle cell energy production efficiency. Muscle strength and endurance increase while age-related muscle loss experiences significant reduction.

No.3

Your Mitochondria Health

Your Top 3 Aging Factor 50.7 years old 1.10x rate of aging

Activates mitophagy pathways (e.g., PINK1-Parkin pathway), clearing damaged mitochondria and improving overall mitochondrial quality.

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Urolithin A enhances muscle function by promoting mitochondrial renewal and improving muscle cell energy production efficiency. Muscle strength and endurance increase while age-related muscle loss experiences significant reduction.

No.5

Your Nervous System

Your Top 5 Aging Factor 49.3 years old 1.07x rate of aging

The compound may protect brain cells by improving neuronal energy metabolism and reducing age-related cellular damage. Cognitive function support and brain aging process deceleration represent potential benefits.

Nutrition & Supplement for you

Vitamin C

Vitamin C, also known as ascorbic acid, is a powerful antioxidant that helps protect cells from damage. It is necessary for the growth, development, and repair of all body tissues, and plays a key role in collagen production, iron absorption, and maintaining immune health.

Suggestions for Vitamin C

Bell Peppers, Grapefruit, Kale, Kiwifruit, Mangoes, Oranges, Pineapples, Strawberries

Why Recommend This for You?

No.1 **Your Cardiac System**
Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

As an antioxidant, Vitamin C helps neutralize harmful free radicals in the cardiovascular system. By reducing oxidative damage, it helps maintain the integrity of the heart and blood vessels. This protective effect lowers the risk of developing heart disease over time.

No.2 **Your Muscular System**
Your Top 2 Aging Factor 51.2 years old 1.11x rate of aging

Vitamin C enhances the absorption of iron, which is crucial for oxygen transport to muscles. This boosts energy levels during physical activities and helps prevent muscle fatigue.

No.4 **Your Nervous System**
Your Top 4 Aging Factor 49.6 years old 1.08x rate of aging

As an antioxidant, Vitamin C neutralizes free radicals that can damage brain cells. This action diminishes neural deterioration, contributing to the smooth functioning of the nervous system. Regular intake of Vitamin C helps preserve cognitive abilities and overall brain health.

Nutrition & Supplement for you

Vitamin C

Vitamin C, also known as ascorbic acid, is a powerful antioxidant that helps protect cells from damage. It is necessary for the growth, development, and repair of all body tissues, and plays a key role in collagen production, iron absorption, and maintaining immune health.

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Why Recommend This for You?

No.1 **Your Cardiac System**
Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Vitamin C helps reduce overall stress levels in the body by lowering cortisol levels. Reduced stress decreases the likelihood of stress-induced cardiovascular problems like hypertension and arrhythmia. Therefore, Vitamin C indirectly supports heart health by promoting a calmer physiological state.

No.2 **Your Muscular System**
Your Top 2 Aging Factor 51.2 years old 1.11x rate of aging

The antioxidant properties of Vitamin C help alleviate exercise-induced muscle damage. This helps maintain muscle strength and function, promoting overall muscular health.

No.3 **Your Respiratory System**
Your Top 3 Aging Factor 50.5 years old 1.10x rate of aging

By supporting the function of the immune system, vitamin C aids in the repair and maintenance of lung tissues that are often damaged by infections or environmental stressors. This helps in respiratory recovery and maintains long-term lung health.

Coenzyme Q10

Coenzyme Q10 (CoQ10) plays a crucial role in cellular energy production and is known for its effects on improving heart function and protecting cells from oxidative stress. It is also considered for its potential to enhance blood sugar regulation.

Suggestions for Coenzyme Q10

Beef, Broccoli, Cauliflower, Chicken, Fish (especially sardines and mackerel), Pork, Sesame seeds, Soybeans, Spinach

Why Recommend This for You?

No.1

Your Cardiac System

Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Coenzyme Q10 supplements can enhance the energy levels of heart cells, ensuring they function optimally. This is particularly important for individuals with heart conditions, as it aids in maintaining strong and healthy heartbeats.

No.3

Your Mitochondria Health

Your Top 3 Aging Factor 50.7 years old 1.10x rate of aging

CoQ10 is a generally well-tolerated nutraceutical that supports mitochondrial health by improving electron flow and redox buffering, showing particular therapeutic promise in cases of primary CoQ deficiency.

No.4

Your Nervous System

Your Top 4 Aging Factor 49.6 years old 1.08x rate of aging

Coenzyme Q10's role in reducing oxidative damage in neurons fortifies the brain against stress-related damage. This protective capacity is essential in preventing or slowing the deterioration that can lead to neurodegenerative conditions.

Vitamin D

Vitamin D is crucial for bone health, immune function, and calcium absorption. Its deficiency is linked to various health issues, including bone disorders and an increased risk of chronic diseases.

Suggestions for Vitamin D

Cod liver oil, Egg yolks, Fortified cereals, Fortified milk, Fortified orange juice, Mushrooms exposed to UV light, Tuna

Why Recommend This for You?

No.1

Your Cardiac System

Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Adequate levels of vitamin D have been linked to lower risks of heart failure and cardiovascular issues by supporting the cardiovascular system's optimal functioning.

No.2

Your Muscular System

Your Top 2 Aging Factor 51.2 years old 1.11x rate of aging

Vitamin D's role in calcium regulation is critical for muscle function because calcium is essential for muscle contractions. Strong muscle contractions are necessary for effective physical movements and stability. Vitamin D deficiency can lead to weaker muscles and reduced physical performance.

No.3

Your Respiratory System

Your Top 3 Aging Factor 50.5 years old 1.10x rate of aging

Ensuring adequate Vitamin D levels can improve respiratory health by lowering inflammation in the airways and boosting the body's ability to fight off respiratory pathogens. This results in fewer infections and better lung function.

Resveratrol

Resveratrol is believed to help activate genes that protect against aging-related diseases. It is often researched for its potential to improve heart health and increase insulin sensitivity, making it a popular supplement in longevity circles.

Suggestions for Resveratrol

Blueberries, Cranberries, Dark Chocolate, Lingonberries, Mulberries, Peanuts, Pistachios, Raspberries, Red Grapes, Red Wine

Why Recommend This for You?

No.1

Your Cardiac System

Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Resveratrol supports the cardiac system by promoting healthy blood vessel function and improving endothelial health, which enhances circulation and reduces arterial stiffness. It also helps modulate lipid metabolism and reduce oxidative stress in cardiac tissue, contributing to overall heart resilience and reduced cardiovascular risk. These effects may be particularly beneficial in aging or metabolically stressed individuals.

Your Brain Health and Cognition

49.1 years old 1.06x rate of aging

Resveratrol may enhance brain health and cognition by improving cerebral blood flow and supporting mitochondrial function in neurons, which are critical for sustained mental performance. It also helps protect neural tissue from oxidative damage and inflammation, potentially slowing cognitive decline and supporting memory and executive function with age.

Your Inflammatory Regulation

49.1 years old 1.06x rate of aging

Resveratrol helps to modulate the body's inflammatory response by targeting multiple steps in the inflammatory process. This can alleviate chronic pain and swelling, promoting better health and comfort for individuals with persistent inflammatory issues.

Resveratrol

Resveratrol is believed to help activate genes that protect against aging-related diseases. It is often researched for its potential to improve heart health and increase insulin sensitivity, making it a popular supplement in longevity circles.

Suggestions for Resveratrol

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No.4

Your Brain Health and Cognition

Your Top 4 Aging Factor 49.4 years old 1.07x rate of aging

Resveratrol may enhance brain health and cognition by improving cerebral blood flow and supporting mitochondrial function in neurons, which are critical for sustained mental performance. It also helps protect neural tissue from oxidative damage and inflammation, potentially slowing cognitive decline and supporting memory and executive function with age.

Your Inflammatory Regulation

48.5 years old 1.05x rate of aging

By blocking specific pathways that trigger inflammation, resveratrol can decrease the production of pro-inflammatory cytokines. This action helps to manage and soothe chronic inflammatory conditions, making it beneficial for overall systemic health.

Therapy for you

BEFORE YOU READ ON

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Stem Cell Therapy

Effects may vary between individuals. Consult a provider before use to avoid potential risks.

Stem Cell Therapy promotes tissue regeneration by replenishing damaged or aging cells with pluripotent or multipotent stem cells. It supports systemic rejuvenation and recovery from degenerative conditions.

Why Recommend This for You?

No.1

Your Cardiac System
Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Stem cells hold promise for cardiac repair and regeneration, particularly in cases of heart attacks and heart failure. They can promote new blood vessel formation, reduce fibrosis, and enhance cardiac function, offering potential for restoring damaged heart tissue.

No.4

Your Nervous System
Your Top 4 Aging Factor 49.6 years old 1.08x rate of aging

Stem cells play a pivotal role in neurodegeneration by offering potential for neuronal replacement and repair in conditions such as Alzheimer's and Parkinson's diseases. They can differentiate into neurons and glial cells, potentially restoring lost functions and improving cognitive abilities. Research is ongoing to explore their efficacy and safety in treating neurodegenerative disorders.

Your Brain Health and Cognition
49.1 years old 1.06x rate of aging

Stem cells contribute significantly to brain health and cognition by supporting neurogenesis and maintaining neuronal plasticity. By replenishing lost or damaged neurons, stem cells may enhance cognitive function and protect against age-related decline. Their ability to secrete neurotrophic factors also promotes neuronal survival and function.

Therapy for you

BEFORE YOU READ ON

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Follistatin Gene Therapy

Effects may vary between individuals. Consult a provider before use to avoid potential risks.

Follistatin Gene Therapy enhances muscle growth and regeneration by inhibiting myostatin and related growth inhibitors. It supports improved body composition, physical performance, and metabolic health.

Why Recommend This for You?

No.2

Your Muscular System
Your Top 2 Aging Factor 51.2 years old 1.11x rate of aging

Follistatin treatment results in muscle hypertrophy and increased muscle mass and bone density. It directly blocks myostatin, the primary brake on muscle growth throughout the body.

No.5

Your Nervous System
Your Top 5 Aging Factor 49.3 years old 1.07x rate of aging

Follistatin improves nerve-muscle connection function and communication in aged subjects. The therapy supports motor neuron health and helps maintain muscle control with aging.

Your Skeletal System
49.0 years old 1.06x rate of aging

The therapy increases bone density and supports skeletal muscle attachment points. Follistatin promotes bone-building cell activity and bone formation through growth factor enhancement.

Follistatin Gene Therapy

Effects may vary between individuals. Consult a provider before use to avoid potential risks.

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Follistatin improves nerve-muscle connection function and communication in aged subjects. The therapy supports motor neuron health and helps maintain muscle control with aging.

Your Inflammatory Regulation

49.1 years old 1.06x rate of aging

The therapy can reduce inflammation throughout the body by modulating immune responses. Follistatin influences inflammatory pathways through its effects on cellular signaling systems.

Stem Cell Therapy

Effects may vary between individuals. Consult a provider before use to avoid potential risks.

Stem Cell Therapy promotes tissue regeneration by replenishing damaged or aging cells with pluripotent or multipotent stem cells. It supports systemic rejuvenation and recovery from degenerative conditions.

Why Recommend This for You?

No.1

Your Cardiac System

Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Stem cells hold promise for cardiac repair and regeneration, particularly in cases of heart attacks and heart failure. They can promote new blood vessel formation, reduce fibrosis, and enhance cardiac function, offering potential for restoring damaged heart tissue.

No.3

Your Respiratory System

Your Top 3 Aging Factor 50.5 years old 1.10x rate of aging

Stem cells are being studied for treating chronic lung diseases such as chronic obstructive pulmonary disease (COPD) and pulmonary fibrosis. Their regenerative properties may help restore lung tissue, reduce inflammation, and improve overall lung function.

No.4

Your Brain Health and Cognition

Your Top 4 Aging Factor 49.4 years old 1.07x rate of aging

Stem cells contribute significantly to brain health and cognition by supporting neurogenesis and maintaining neuronal plasticity. By replenishing lost or damaged neurons, stem cells may enhance cognitive function and protect against age-related decline. Their ability to secrete neurotrophic factors also promotes neuronal survival and function.

Fitness for you

Swimming

Swimming is a physical activity that involves moving through water using one's arms and legs. It is an excellent exercise for improving cardiovascular health, building muscle strength, and enhancing flexibility. Swimming is also a low-impact activity, making it suitable for people of all ages and fitness levels. It can be done in pools, lakes, and oceans, providing both recreational enjoyment and competitive opportunities.

Why Recommend This for You?

No.1 **Your Cardiac System**
Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Swimming regularly strengthens the heart muscle, improving its efficiency in pumping blood throughout the body. This helps to lower blood pressure and reduce the risk of heart-related diseases.

No.2 **Your Muscular System**
Your Top 2 Aging Factor 51.2 years old 1.11x rate of aging

Swimming involves repetitive motions that strengthen muscles and improve their stamina. As a low-impact exercise, it reduces the risk of injury while providing a comprehensive workout for all major muscle groups.

No.3 **Your Mitochondria Health**
Your Top 3 Aging Factor 50.7 years old 1.10x rate of aging

Full-body aerobic activity supports mitochondrial respiration and efficiency.

Fitness for you

Swimming

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Why Recommend This for You?

No.1 **Your Cardiac System**
Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Swimming's continuous and controlled movements provide excellent cardiovascular conditioning, improving the heart's pumping efficiency and reducing the chance of developing heart issues. This keeps the cardiovascular system robust and healthy.

No.2 **Your Muscular System**
Your Top 2 Aging Factor 51.2 years old 1.11x rate of aging

Swimming improves muscle flexibility and joint mobility due to the range of motion required to perform different strokes. This flexibility is crucial for preventing injuries and maintaining muscular health and function.

Your Mitochondria Health
49.2 years old 1.07x rate of aging

Full-body aerobic activity supports mitochondrial respiration and efficiency.

High-Intensity Interval Training

High-Intensity Interval Training, or HIIT, is a workout method that alternates between short bursts of intense exercise and periods of low-intensity recovery or rest. These workouts can be done with various exercises, such as sprinting, cycling, or bodyweight exercises, and typically last anywhere from 10 to 30 minutes. HIIT aims to improve cardiovascular fitness, burn calories, and enhance overall athletic performance in less time compared to traditional exercise routines.

Why Recommend This for You?

No.1

Your Cardiac System

Your Top 1 Aging Factor 53.0 years old 1.15x rate of aging

Strongly improves cardiac function by enhancing cardiac remodeling, stroke volume, and vascular function. Elevates VO2 max and mitochondrial capacity in cardiac and skeletal muscle.

No.3

Your Mitochondria Health

Your Top 3 Aging Factor 50.7 years old 1.10x rate of aging

Strong activator of PGC-1α, mitochondrial biogenesis, and respiratory chain activity. Improves mitochondrial turnover and efficiency rapidly.

No.5

Your Male Reproductive System

Your Top 5 Aging Factor 49.2 years old 1.07x rate of aging

Improves vascular function and reduces oxidative stress, but excessive intensity without recovery may elevate cortisol and impair sperm quality.

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Why Recommend This for You?

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Strongly improves cardiac function by enhancing cardiac remodeling, stroke volume, and vascular function. Elevates VO2 max and mitochondrial capacity in cardiac and skeletal muscle.

Your Mitochondria Health

49.2 years old 1.07x rate of aging

Strong activator of PGC-1α, mitochondrial biogenesis, and respiratory chain activity. Improves mitochondrial turnover and efficiency rapidly.

Your Female Reproductive System

48.5 years old 1.05x rate of aging

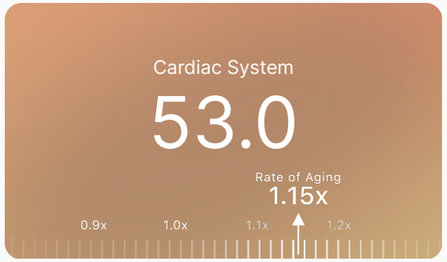
Highly effective for PCOS: improves insulin resistance, reduces hyperandrogenism, and can restore ovulation.

Cardiac System Details

21 BioMarkers

Our hearts pump blood without stopping from early embryonic development until the end of our lives. The health of cardiac system is regulated by the complex interplay of the heart organ, cardiac tissue, cardiomyocyte cells, the systemic environment, and feedback to and from other organ systems, including the endocrine system and central nervous system (CNS).

SystemAge for your Cardiac System



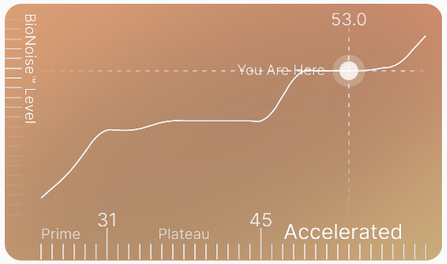
Your Cardiac System SystemAge is **53.0** years, which is **6.9** years older than your calendar age of 46.1. This means your Cardiac System has been aging faster than expected, at a rate of **1.15x** the calendar speed. This indicates your Cardiac System is performing in the **attention** range for your age group.

Remember, your biological age and rate of aging are not fixed. With the right interventions, you can slow your aging process even further.

SystemAge for Your Cardiac System reflects the biological state of your Cardiac System. It is calculated from DNA methylation patterns at a handpicked set of biomarkers that are specifically tied to how this system ages. Unlike tests that may use generic or non-aging-related CpGs, Generation Lab focuses only on scientifically validated, aging-relevant markers to ensure your results truly reflect the biology of aging.

Rate of Aging is the ratio of your biological age over your calendar age — it informs the speed your body is aging at up to the point of the test.

Male Aging Entropy Curve for Cardiac System



Your cardiac system demonstrates accelerated aging with increasing cardiovascular challenges. This stage signifies that the aging process for your cardiac function has progressed beyond the plateau phase, with changes occurring at a quicker pace. Regular check-ups and adhering to a heart-healthy lifestyle can help manage the impacts.

You have significant potential for health improvements, making this an ideal time to take proactive steps toward better health outcomes.

The Male Cardiac System Aging Entropy Curve reflects the common aging trajectory of the Cardiac System among healthy males. The curve is plotted based on Generation Lab's extensive dataset of over several million healthy data points. Curves for individual systems are different from each other, indicating distinctive aging characteristics of different bodily functions.

BioNoise™ reflects the chaos in your molecular systems — variability in gene expression that increases with age. Rising BioNoise can signal early aging or disease risk — even when labs look normal.

Cardiac System Details

21 BioMarkers

Our hearts pump blood without stopping from early embryonic development until the end of our lives. The health of cardiac system is regulated by the complex interplay of the heart organ, cardiac tissue, cardiomyocyte cells, the systemic environment, and feedback to and from other organ systems, including the endocrine system and central nervous system (CNS).

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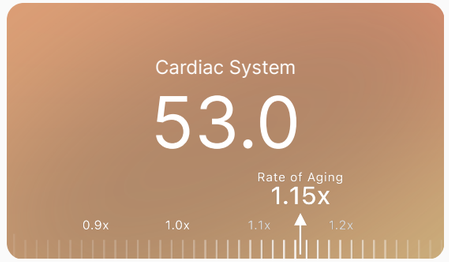

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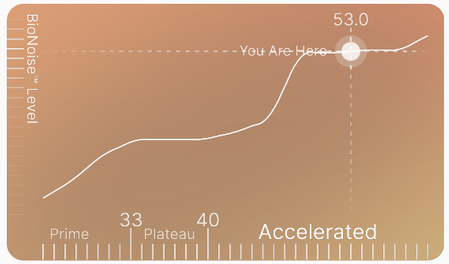
Female Aging Entropy Curve for Cardiac System



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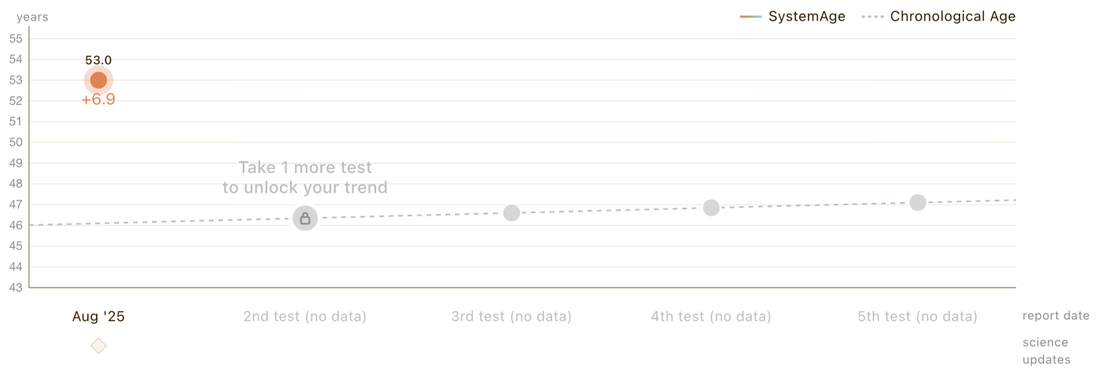
Trend for Your Cardiac System

View Trend for All Systems [pg. 6] →



Lifestyle Reflection

Sedentary lifestyle, high-sodium diets, chronic stress, smoking, and excessive alcohol consumption strain heart muscle and disrupt rhythm regulation. Poor sleep quality and social isolation further accelerate cardiovascular aging and reduce heart function efficiency.

Common Symptoms & Conditions

As the cardiac system ages, reduced cardiovascular efficiency can manifest as:

- Shortness of breath during exertion
- Fatigue and reduced endurance
- Irregular heartbeat or palpitations
- Swelling in legs or ankles

Common age-related cardiac conditions include left ventricular hypertrophy, diastolic dysfunction, and atrial fibrillation. In some cases, declining cardiac function can progress to heart failure, coronary artery disease, and increased stroke risk, highlighting the importance of regular cardiovascular screening and heart-healthy lifestyle modifications.

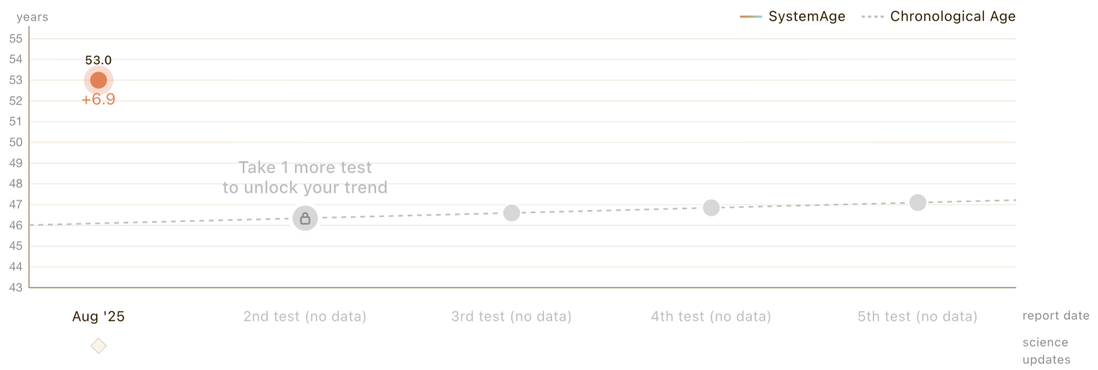
Cardiac System Biomarkers

KCNQ1, CHD5, DMD, FGF1, TNF, SYTL2, IL1RN

These Biomarkers are measurable biological signals that reflect the state or function of your body. In the SystemAge™ test, we use specific CpG sites — regions in your DNA where methylation patterns can be measured as biomarkers. Each set of CpGs is handpicked based on strong scientific evidence linking it to the aging of a particular body system.

Trend for Your Cardiac System

View Trend for All Systems [pg. 6] →



Lifestyle Reflection

Sedentary lifestyle, high-sodium diets, chronic stress, smoking, and excessive alcohol consumption strain heart muscle and disrupt rhythm regulation. Poor sleep quality and social isolation further accelerate cardiovascular aging and reduce heart function efficiency.

Common Symptoms & Conditions

As the cardiac system ages, reduced cardiovascular efficiency can manifest as:

- Shortness of breath during exertion
- Fatigue and reduced endurance
- Irregular heartbeat or palpitations
- Swelling in legs or ankles

Common age-related cardiac conditions include left ventricular hypertrophy, diastolic dysfunction, and atrial fibrillation. In some cases, declining cardiac function can progress to heart failure, coronary artery disease, and increased stroke risk, highlighting the importance of regular cardiovascular screening and heart-healthy lifestyle modifications.

Cardiac System Biomarkers

KCNQ1, CHD5, DMD, FGF1, TNF, SYTL2, IL1RN

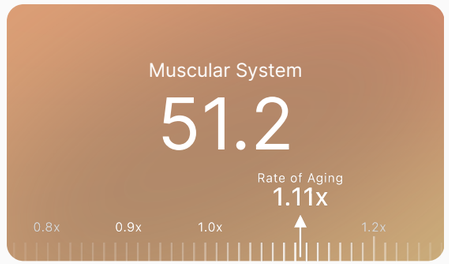
These Biomarkers are measurable biological signals that reflect the state or function of your body. In the SystemAge™ test, we use specific CpG sites — regions in your DNA where methylation patterns can be measured as biomarkers. Each set of CpGs is handpicked based on strong scientific evidence linking it to the aging of a particular body system.

Muscular System Details

33 BioMarkers

Skeletal muscle allows us to move voluntarily and gives us strength and agility. Muscle tissue becomes progressively lost with aging and in certain diseases (dystrophies), causing people to lose strength, become frail, and depend on others.

SystemAge for your Muscular System



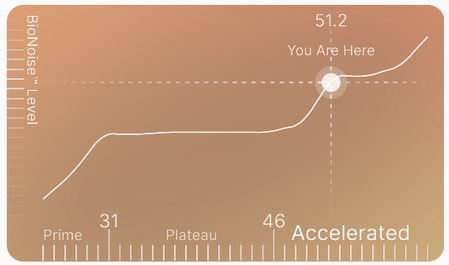
Your Muscular System SystemAge is **51.2** years, which is **5.1** years older than your calendar age of 46.1. This means your Muscular System has been aging faster than expected, at a rate of **1.11x** the calendar speed. This indicates your Muscular System is performing in the **attention** range for your age group.

Active lifestyle? Heavy exercise can change the cell composition of your blood, which may lead to "older" SystemAge results. This typically reflects that your body is rebuilding, a normal process of staying active. Read more

SystemAge for Your Muscular System reflects the biological state of your Muscular System. It is calculated from DNA methylation patterns at a handpicked set of biomarkers that are specifically tied to how this system ages. Unlike tests that may use generic or non-aging-related CpGs, Generation Lab focuses only on scientifically validated, aging-relevant markers to ensure your results truly reflect the biology of aging.

Rate of Aging is the ratio of your biological age over your calendar age — it informs the speed your body is aging at up to the point of the test.

Male Aging Entropy Curve for Muscular System



Your muscular system shows accelerated aging with progressive loss of muscle mass and strength. This stage signifies that the natural decline in muscle mass and strength is occurring at a faster pace, which is common later in life. Continued attention to physical activity, nutrition, and overall health can help manage the effects.

You have significant potential for health improvements, making this an ideal time to take proactive steps toward better health outcomes.

The Male Muscular System Aging Entropy Curve reflects the common aging trajectory of the Muscular System among healthy males. The curve is plotted based on Generation Lab's extensive dataset of over several million healthy data points. Curves for individual systems are different from each other, indicating distinctive aging characteristics of different bodily functions.

BioNoise™ reflects the chaos in your molecular systems — variability in gene expression that increases with age. Rising BioNoise can signal early aging or disease risk — even when labs look normal.

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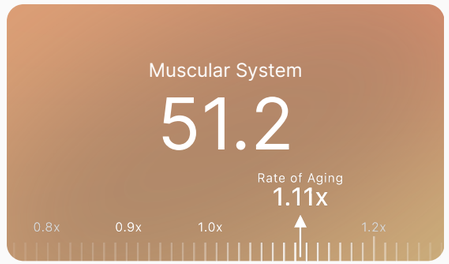

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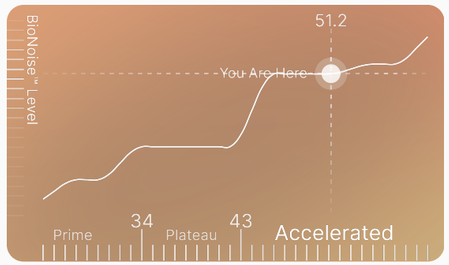
Female Aging Entropy Curve for Muscular System



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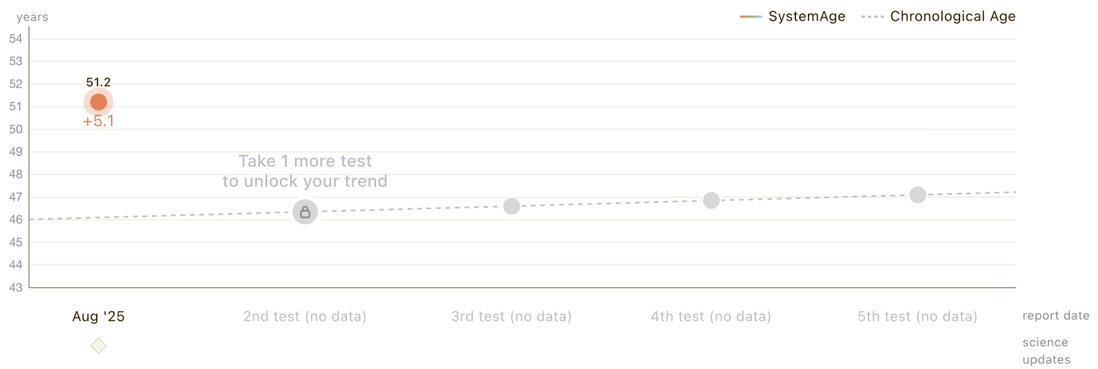
Trend for Your Muscular System

View Trend for All Systems [pg. 6] →



Lifestyle Reflection

Physical inactivity, inadequate protein intake, and chronic inflammation accelerate muscle loss and weakness. Poor sleep, hormonal imbalances, and excessive alcohol impair muscle protein synthesis and recovery, leading to progressive loss of strength and functional capacity.

Common Symptoms & Conditions

As the muscular system ages, signs include:

- Decreased muscle strength and power
- Reduced physical endurance
- Slower movement and reaction time
- Impaired balance and coordination

Common age-related muscular conditions include muscle atrophy, chronic weakness, and myopathies such as muscular dystrophy. In some cases, declining muscle function can also contribute to metabolic issues, impaired mobility, and difficulty performing daily activities, highlighting the importance of maintaining muscle health through proactive lifestyle and medical interventions.

Muscular System Biomarkers

KY, DMD, CACNA2D4, IL1RN, GRM4, PFKP

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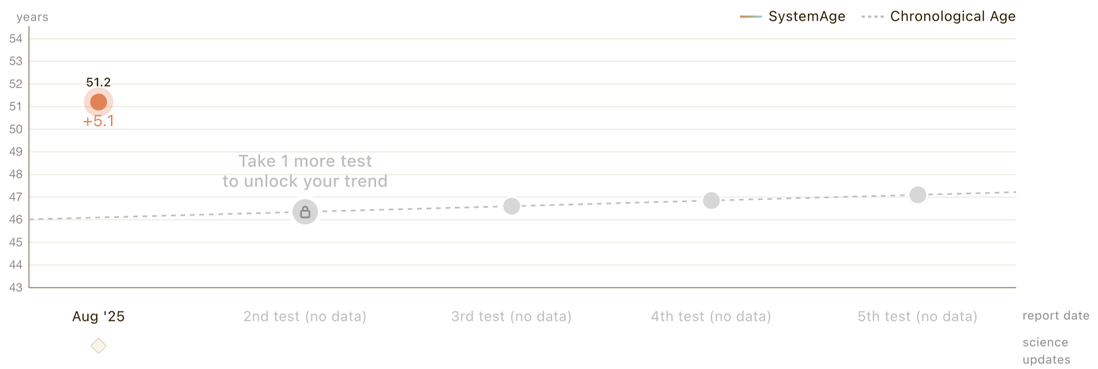
Your Muscular System Details

Trend for Your Muscular System

View Trend for All Systems [pg. 6] →



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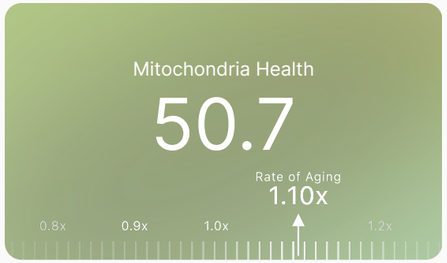
Mitochondria Health Details

47 BioMarkers

Mitochondria are the cellular powerhouses that generate ATP through oxidative phosphorylation, supplying energy for all processes while regulating calcium homeostasis and apoptosis. These organelles maintain quality through continuous fission, fusion, and mitophagy. With aging, mitochondrial function declines through accumulated mtDNA mutations, reduced biogenesis, and decreased respiratory efficiency, resulting in cellular energy deficits and functional decline across organ systems.

SystemAge for your Mitochondria Health



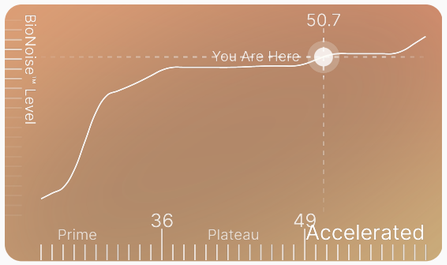
Your Mitochondria Health SystemAge is **50.7** years, which is **4.6** years older than your calendar age of 46.1. This means your Mitochondria Health has been aging faster than expected, at a rate of **1.10x** the calendar speed. This indicates your Mitochondria Health is performing in the **normal** range for your age group.

Remember, your biological age and rate of aging are not fixed. With the right interventions, you can slow your aging process even further.

SystemAge for Your Mitochondria Health reflects the biological state of your Mitochondria Health. It is calculated from DNA methylation patterns at a handpicked set of biomarkers that are specifically tied to how this system ages. Unlike tests that may use generic or non-aging-related CpGs, Generation Lab focuses only on scientifically validated, aging-relevant markers to ensure your results truly reflect the biology of aging.

Rate of Aging is the ratio of your biological age over your calendar age — it informs the speed your body is aging at up to the point of the test.

Male Aging Entropy Curve for Mitochondria Health



Your mitochondrial health has entered a phase of accelerated aging. Signals here may indicate declining energy production and increased oxidative stress. This involves potentially reduced mitochondrial density, decreased respiratory efficiency, and accumulated mtDNA mutations. Targeted interventions can help support remaining function.

This progression aligns with typical aging patterns for your chrono-age and represents a natural part of the aging process.

The Male Mitochondria Health Aging Entropy Curve reflects the common aging trajectory of the Mitochondria Health among healthy males. The curve is plotted based on Generation Lab's extensive dataset of over several million healthy data points. Curves for individual systems are different from each other, indicating distinctive aging characteristics of different bodily functions.

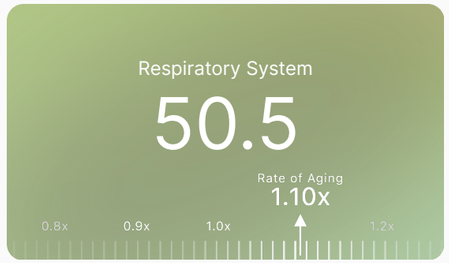
BioNoise™ reflects the chaos in your molecular systems — variability in gene expression that increases with age. Rising BioNoise can signal early aging or disease risk — even when labs look normal.

Respiratory System Details

29 BioMarkers

Respiratory health is essential for breathing and relies on lung health. Lungs maintain optimal respiratory function throughout our lives. Respiration intakes oxygen and expels carbon dioxide, essential for sustaining life. Respiratory health often declines with aging and in certain diseases, such as pulmonary illnesses.

SystemAge for your Respiratory System



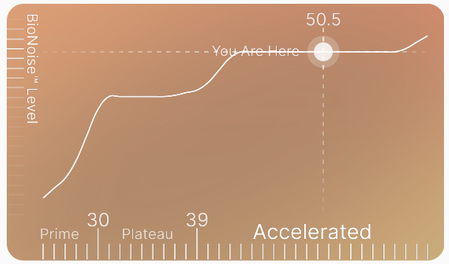
Your Respiratory System SystemAge is **50.5** years, which is **4.4** years older than your calendar age of 46.1. This means your Respiratory System has been aging faster than expected, at a rate of **1.10x** the calendar speed. This indicates your Respiratory System is performing in the **normal** range for your age group.

Remember, your biological age and rate of aging are not fixed. With the right interventions, you can slow your aging process even further.

SystemAge for Your Respiratory System reflects the biological state of your Respiratory System. It is calculated from DNA methylation patterns at a handpicked set of biomarkers that are specifically tied to how this system ages. Unlike tests that may use generic or non-aging-related CpGs, Generation Lab focuses only on scientifically validated, aging-relevant markers to ensure your results truly reflect the biology of aging.

Rate of Aging is the ratio of your biological age over your calendar age — it informs the speed your body is aging at up to the point of the test.

Female Aging Entropy Curve for Respiratory System



Your respiratory system exhibits accelerated aging with progressively reduced lung capacity. This stage indicates a quicker degradation of respiratory capacity, which is a common trajectory as individuals age. Maintaining healthy lifestyle practices and consulting healthcare professionals regularly helps manage this natural decline.

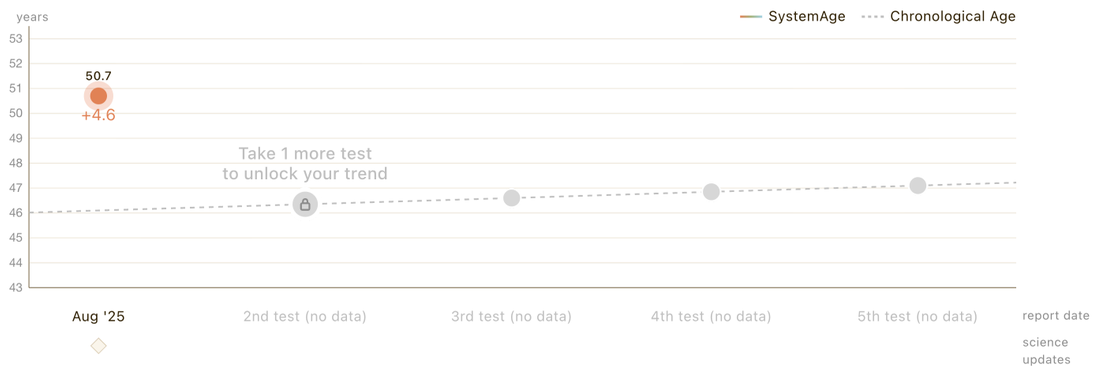
This progression aligns with typical aging patterns for your chrono-age and represents a natural part of the aging process.

The Female Respiratory System Aging Entropy Curve reflects the common aging trajectory of the Respiratory System among healthy females. The curve is plotted based on Generation Lab's extensive dataset of over several million healthy data points. Curves for individual systems are different from each other, indicating distinctive aging characteristics of different bodily functions.

BioNoise™ reflects the chaos in your molecular systems — variability in gene expression that increases with age. Rising BioNoise can signal early aging or disease risk — even when labs look normal.

Trend for Your Mitochondria Health

View Trend for All Systems [pg. 6] →



Lifestyle Reflection

Sedentary lifestyle, chronic stress, poor sleep, and processed food impair mitochondrial function and energy production. Excessive caloric intake, environmental toxins, and chronic inflammation reduce mitochondrial density, increase oxidative stress, and accelerate cellular aging.

Common Symptoms & Conditions

As mitochondrial function declines, reduced cellular energy can manifest as:

- Persistent fatigue and low energy levels
- Reduced exercise tolerance and endurance
- Muscle weakness and poor recovery
- Cognitive difficulties and brain fog
- Increased sensitivity to cold

Common age-related mitochondrial conditions include mitochondrial dysfunction syndrome, sarcopenia with mitochondrial impairment, and oxidative stress-related tissue damage. In some cases, declining mitochondrial function can contribute to neurodegenerative diseases, cardiovascular decline, metabolic syndrome, and accelerated multi-organ aging, highlighting the importance of aerobic exercise, mitochondrial-supporting nutrients (CoQ10, NAD+ precursors, antioxidants), metabolic health monitoring, and lifestyle interventions that promote mitochondrial biogenesis.

Mitochondria Health Biomarkers

BNIP3, CCDC109B, CCND1, NACC2, RAN, SDR9C7, PEX16, PARK2

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Trend for Your Respiratory System

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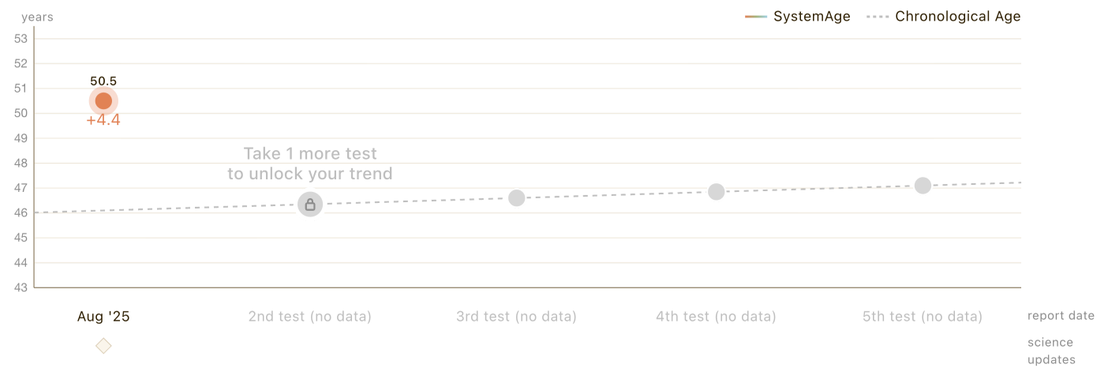

Lifestyle Reflection

Smoking, air pollution exposure, sedentary lifestyle, and poor posture reduce lung capacity and efficiency. Chronic respiratory infections, occupational hazards, and obesity further compromise breathing mechanics and oxygen exchange, accelerating decline in respiratory function.

Common Symptoms & Conditions

As the respiratory system ages, signs include:

- Shortness of breath during exertion
- Reduced exercise tolerance
- Increased respiratory infection susceptibility
- Morning cough or difficulty clearing secretions

Common age-related respiratory conditions include decreased vital capacity, reduced gas exchange efficiency, and weakened respiratory muscles. In some cases, declining lung function can progress to chronic obstructive pulmonary disease or respiratory failure, highlighting the importance of pulmonary function testing and respiratory health maintenance.

Respiratory System Biomarkers

KCNQ1, TNF, IL1RN, CDH23, CHRNA2, IGF2BP2

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