mescreen™ Mitochondrial Function Report

Client Name: John Doe
Barcode: VRT000DM15
Date of Birth:

Date Collected: 01/15/2026
Date Completed: 01/15/2026

Welcome to mescreen™ John

mescreen™ is the world's first and only mitochondrial function test that enables you to get the same insights that were developed to monitor the health of NASA astronauts. It's the most advanced mitochondrial function test available today. This puts health, energy, recovery, and longevity understanding in your hands like never before.

Your mitochondria are the microscopic engines that fuel nearly every cell in your body—powering your heart, brain, muscles, immune system, and beyond.

- There are **37 trillion** cells in the human body, **each with 500-5,000 mitochondria.**
- Mitochondria produce over **90%** of your energy — essential to survive and thrive.
- They're present in nearly every cell of your body.
- They make up over **30%** of the mass of your heart.
- 100% of non-communicable diseases relate to mitochondrial dysfunction.

However, their role doesn't stop there. Mitochondria are also gatekeepers of metabolic balance, inflammation, cellular repair, and longevity. When mitochondria work well, you feel energized, resilient, and clear-minded. When they falter, fatigue, brain fog, hormonal imbalances, and chronic disease often follow. Emerging research links mitochondrial dysfunction to conditions ranging from long COVID and autoimmune disease to Alzheimer's, gut health, cardiac, and metabolic disorders.

That's why tracking your mitochondrial health is no longer optional—it's foundational.

Unlike conventional tests that rely on indirect or limited markers, mescreen™ uses a proprietary analytical process developed in studies for NASA to assess mitochondrial health with unmatched depth and precision. This comprehensive analysis gives you direct insight into your cellular health and explores four critical dimensions of mitochondrial function:

mescore™: Your mitochondrial efficiency score uses our proprietary algorithm to give you a mitochondrial health vital sign. Like a biological age, you can use it to track your progress over time.

Energy Output and Efficiency: How much energy your mitochondria produce—and whether your cells perform at full capacity or under strain.

Metabolic Balance: Whether your body is efficiently using mitochondria for energy or is overly relying on glycolysis, a less sustainable pathway.

Oxidative Stress (ROS): Whether your mitochondria are generating reactive oxygen species at optimal levels—enough for healthy signaling but not so much that they cause cellular damage.

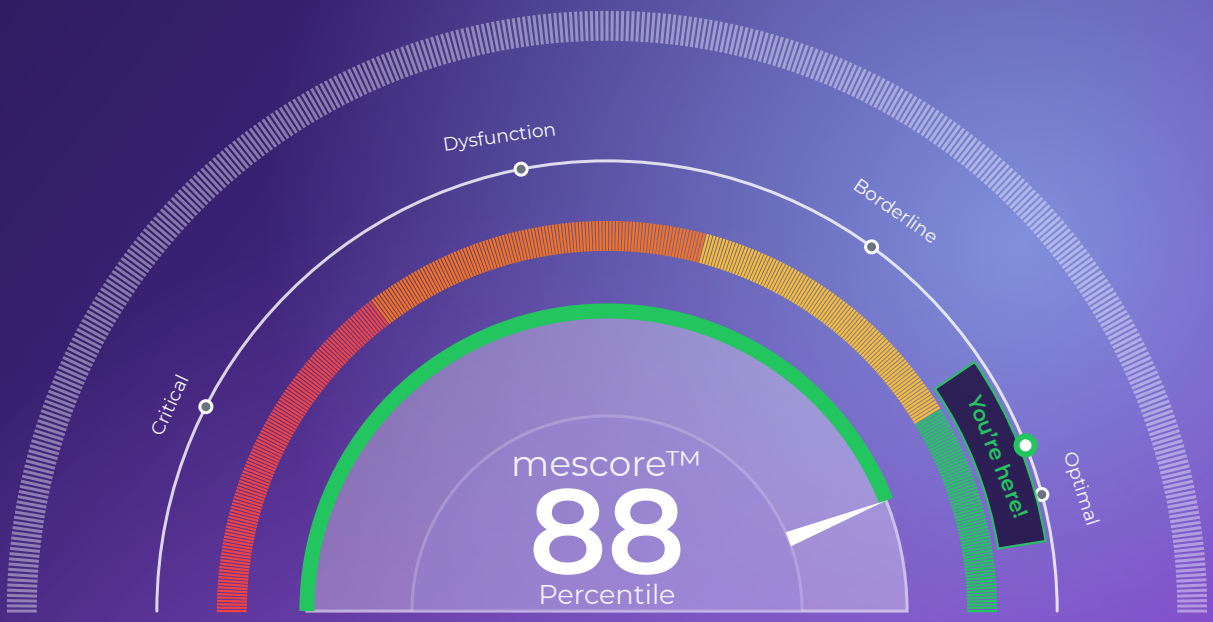
Mitochondrial Network Integrity: How well your mitochondria communicate, adapt, and maintain resilience under stress—key indicators of cellular longevity.

You'll receive personalized nutrition, lifestyle, and supplement suggestions based on your unique results to support optimal mitochondrial performance. You also have the option to consult directly with a mitochondrial health specialist, who can guide you through your report. Whether you're seeking answers for fatigue, chronic illness, or simply looking to optimize your energy and longevity, mescreen™ brings the science of mitochondrial health directly to you—with clarity, accuracy, and purpose.

Now let's get to your personal mescore™, profile, and mitochondrial function results and recommendations!

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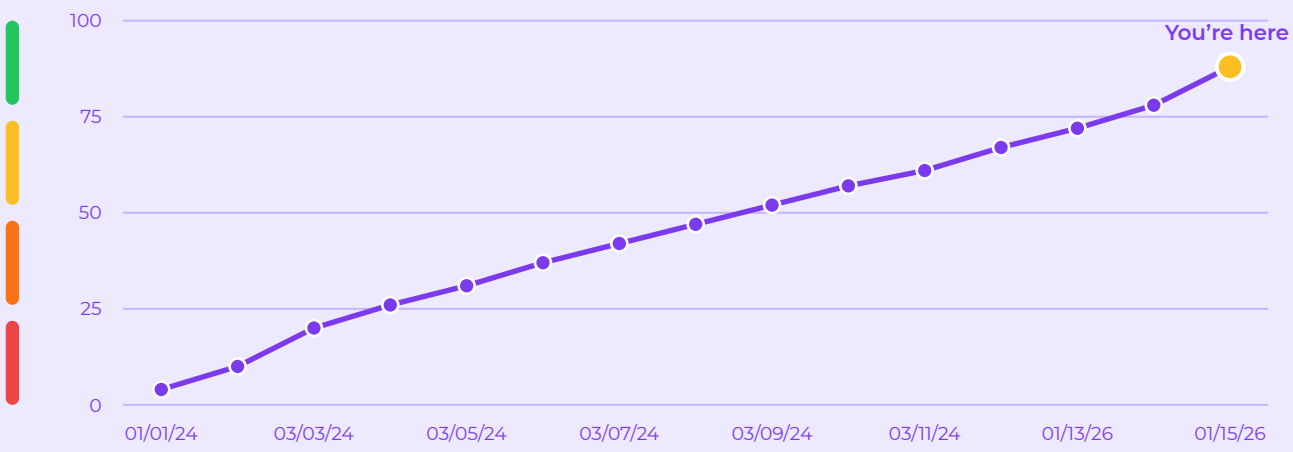
Your mescore™



What your mescore™ means?

mescore™ is the new vital sign that gives you a focused metric to measure and track your relative mitochondrial function over time. Your mescore™ is an aggregate weighted score that takes into account 13 measures of mescreen™. This score is then compared to thousands of tests, also called the normative data set, in the mescreen™ database where your percentile score based on your results versus the database is derived.

mescore™ Progress Over Time



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Profile Type: Latent Potential

Summary:

Your mitochondrial profile appears **stable but underpowered,** with most metrics falling within average or low-normal ranges — but without any red flags for oxidative stress, collapse, or active dysfunction. This is a profile of **dormant capacity:** the system isn't broken or overwhelmed, but it's also not fully engaged or optimized.

This may reflect a **resting state,** a protective strategy after stress, or a lack of recent mitochondrial stimulation. It's common in individuals between stress cycles, recovering from illness or burnout, or whose current lifestyle doesn't strongly challenge their energy system.

You may feel "fine," but not particularly energized, sharp, or resilient. Subtle symptoms may include delayed morning energy, reduced motivation to exercise, emotional flatness, or decreased metabolic flexibility. Your system is **calm — but not yet confident.** The goal is to gently awaken mitochondrial function without overloading it.

Phase 1: Awaken Cellular Rhythm & Metabolic Engagement (Months 1-3)

Focus: Create consistency, spark rhythm, and provide gentle energy inputs to signal readiness.

- **Structured Daylight Exposure:** 10–15 min of morning light each day to realign circadian mitochondria.
- **Meal Regularity:** Eat at the exact times daily with adequate protein, fats, and fiber to train glucose handling.
- **Movement Microbursts:** Add 5–10 min of walking, stretching, or breathwork after meals.
- **Polyphenol Intake:** Add berries, cacao, matcha, and green herbs to signal mitochondrial activity gently.
- **Foundational Nutrients:** Reconfirm magnesium, B vitamins, and omega-3s are present and sufficient.

Monitor Recovery: Reassess every 12 weeks to confirm stabilization then every 6-12 months.

Clinical Insight:

This is not dysfunction — it's **unrealized capacity.** Your mitochondria are waiting for a signal to level up. With consistency, challenge, and recovery in the right ratios, your system can shift from neutral to fully engaged — not by force, but by **training energy confidence from the inside out.**

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Profile Comparison

	Score Range	Category	Interpretation
Elite Mitochondrial Performance	90 - 100	Hyper-Adapted Longevity	Elite longevity physiology; calm precision state
	85 - 89	**Super Mitochondrial Responder**	**Strong adaptability; optimal energy performance** You're here!
Adaptive Function	80 - 84	Latent Potential	Calm, stable function; dormant capacity
	75 - 79	High Function with Growth Potential	Healthy, balanced system with room to optimize
	70 - 74	Functional Compensation	Adaptive energy rerouting; recoverable pattern
	65 - 69	Vagal Support	Quick energy mode; parasympathetic underactivity
	60 - 64	Nervous System Shift	Functional shutdown driven by stress signals
Functional Vulnerabilities	55 - 59	Mild-Low Efficiency	Slight inefficiency; optimization needed
	50 - 54	Borderline Mitochondrial Dysfunction	Early-stage inefficiency; reversible stress
	45 - 49	Low Mitochondrial Efficiency	Reduced ATP yield; fixable inefficiency
	40 - 44	Mito Turnover (Borderline)	Mild recycling slowdown; easy correction
	35 - 39	Mito Turnover	Accumulation of old mitochondria; renewal needed
	30 - 34	Network Drift	Mitochondrial coordination loss; dynamic imbalance
Critical Support Needed	25 - 29	ROS Watch	Elevated ROS; early oxidative imbalance
	20 - 24	Lipid Support	Early lipid stress; reinforce membranes
	10 - 19	Lipid Stress	Critical oxidative injury; membranes under attack
	0 - 9	Severe Mitochondrial Dysfunction	Crisis: mitochondria in collapse, urgent intervention

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Action Plan



Months 1-3

Phase 1: Maintain Foundations & Identify Stress Leaks (Months 1-3)

Focus: Strengthen what's working and look for areas where hidden stress may still affect your trajectory.



Stay Rhythmic

Maintain consistent wake/sleep cycles, regular meals, and sunlight exposure.
Maintaining consistent daily routines helps align mitochondrial energy with natural circadian cycles. Rhythmic patterns improve timing of repair and ATP production. This steadiness promotes clearer thinking and physical stamina.



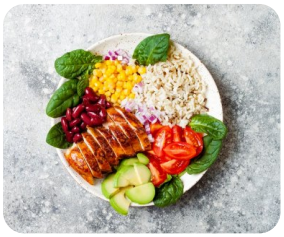
Nutrient Check-In

Reconfirm intake of magnesium, omega-3s, B vitamins, and antioxidants.
Checking nutrient levels ensures mitochondria receive the cofactors necessary for ATP synthesis. Deficiencies in minerals or vitamins can slow energy reactions and increase oxidative stress. Regular assessments help keep mitochondrial capacity strong.



Red Light Therapy (5–10 min/day)

Supports mitochondrial tone and circadian syncing.
Moderate red-light exposure energizes mitochondrial enzymes involved in ATP synthesis. The light provides a direct signal that enhances cellular oxygen utilization. Routine use supports recovery, mood, and metabolic balance.



Blood Sugar Stability

Focus on balanced meals with adequate fiber, healthy fats, and protein to prevent postprandial crashes.
Stable blood sugar prevents mitochondrial overload from glucose spikes. It reduces oxidative stress and protects the electron transport chain. Balanced glucose patterns support steady, reliable energy.



Track Subtle Signals

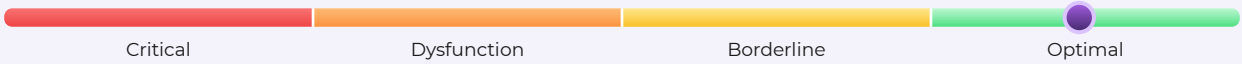
Are there any energy, mood, or focus dips? Addressing them now can keep things optimal.
Subtle signals like afternoon slumps or irritability can indicate mitochondrial strain. Noticing these early allows quick adjustments before energy drops worsen. This awareness improves overall metabolic rhythm.

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Mitochondrial Analytics

Energy Profile

Optimal



Your mitochondria are functioning efficiently, generating energy with minimal waste and maintaining strong reserve capacity. This balance supports endurance, recovery, and overall metabolic health.

The Energy Profile assesses the fundamental functions of your mitochondria, which are like energy factories in your cells. It provides a baseline measure of your overall mitochondrial health and function, allowing you to track changes over time by measuring oxygen consumption at the cellular level.

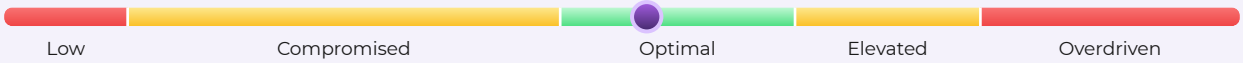
Your energy profile and how your body produces energy play a vital role in your resilience and your ability to deal with stress and diseases. These measures evaluate the efficiency of your mitochondria.

Here are the measures in this panel:

- **Baseline Respiration:** measures how much energy your mitochondria produce at rest.
- **Mitochondrial Efficiency:** evaluates energy loss when not active.
- **Mitochondrial Potential:** shows extra capacity under stress.

Baseline Respiration

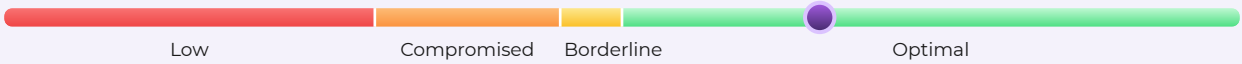
Optimal 52



Your mitochondria maintain a balanced rate of energy production. They are neither sluggish nor overactive. This indicates strong metabolic adaptability, efficient ATP output, and good cellular health under resting conditions.

Mitochondrial Efficiency

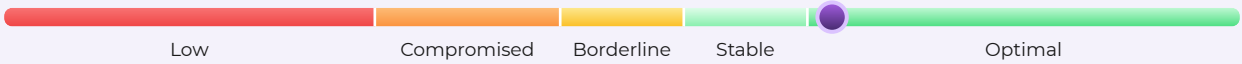
Optimal 66



Your mitochondria operate with excellent energy conservation, producing ATP efficiently while minimizing unnecessary energy loss. This balance supports endurance, resilience, and long-term cellular vitality.

Mitochondrial Potential

Optimal 67



Your mitochondria show excellent energy reserve and adaptability, capable of rapidly increasing ATP production when needed. This reflects strong cellular vitality, metabolic flexibility, and readiness for peak performance.

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Mitochondrial Analytics

Energy Balance

Optimal

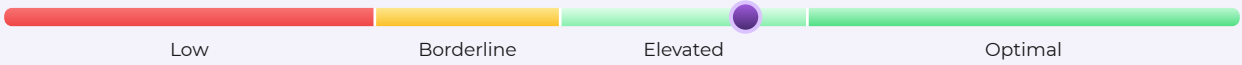


Your cellular energy systems are well-synchronized, maintaining strong communication between mitochondrial and glycolytic pathways. This supports balanced, sustainable energy production and rapid recovery from physical or emotional stress.

The Energy Balance explores two additional components of mitochondrial health: **Glycolysis Energy, Mitochondrial Energy.** These metrics show how your body responds to and recovers from cellular stress.

Mitochondrial Energy

Elevated 60



Your mitochondria are producing strong levels of ATP through efficient oxidative metabolism. This supports steady energy, quick recovery, and balanced stress response throughout the day.

Glycolysis Energy

Stable 60



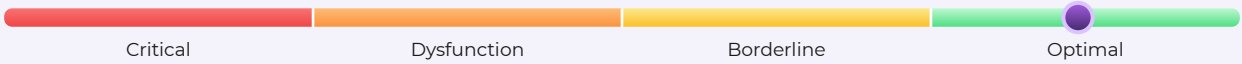
Your glycolytic system is performing well, allowing consistent conversion of glucose into energy for short-term needs. This balance helps you maintain steady focus and stamina during moderate exertion.

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Mitochondrial Analytics

Mito ROS

Optimal



Your mitochondria effectively balance energy production with antioxidant defense, keeping ROS levels in check. This reflects efficient cellular metabolism, resilience to stress, and strong redox homeostasis.

The Mito ROS measures how your mitochondria generate and handle oxidative stress. High reactive oxygen species (ROS) can damage your cells, which may lead to fatigue, inflammation, and long-term health issues.

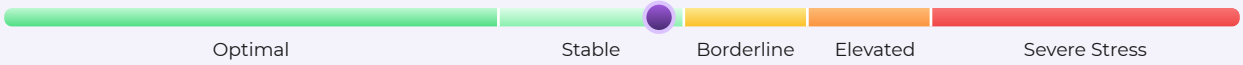
Here are the measures in this panel:

Baseline ROS: oxidative stress at rest.

Stressed ROS: oxidative stress when challenged.

Baseline ROS

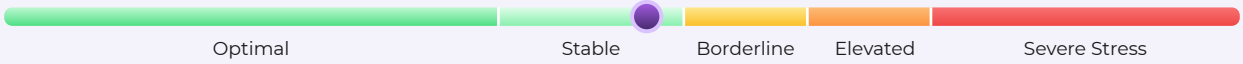
Stable 53



Your baseline ROS is within a normal but slightly higher range, showing that your cells are managing mild oxidative activity effectively. Supporting antioxidants and restorative sleep can help maintain this balanced state.

Stressed ROS

Stable 52



Your stressed ROS levels are slightly above baseline but remain well-controlled, indicating healthy resilience to physical or metabolic stress. This means your antioxidant defenses are functioning effectively, preventing excessive oxidative strain.

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Mitochondrial Analytics

Mito-Network

Borderline



Your mitochondrial networks are moderately stable but could benefit from improved coordination. Supporting fusion-fission balance through nutrient cofactors, rest, and redox support can enhance overall network resilience.

The Mito Network evaluates how well your mitochondria communicate and coordinate energy production. A strong mitochondrial network is linked to better resilience, recovery, and overall cellular performance.

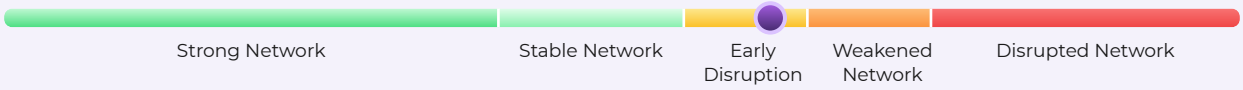
Here are the measures in this panel:

Baseline Mito-Network Dynamics: stability of the network at rest.

Stressed Mito-Network Dynamics: network response under stress.

Baseline Mito-Network

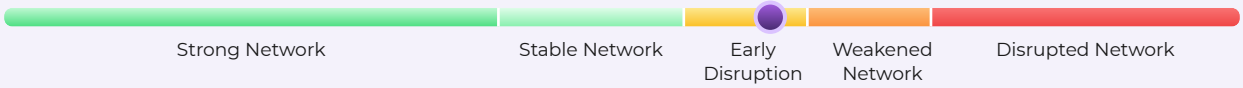
Early Disruption 62



Your mitochondrial network shows mild fragmentation, indicating early signs of stress or reduced communication between mitochondria. Supporting lipid membranes and reducing oxidative load can help restore balance.

Stressed Mito-Network

Early Disruption 62



Your mitochondrial network begins to fragment under stress, indicating reduced adaptability. Supporting redox balance and cellular repair mechanisms can help prevent further decline in network performance.

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