



Longevity™

LAB-SOLUTIONS

Where Health Gets Perfected

The Longevity Program

Science To Slow, Halt, Or
Reverse Biological Aging

Grounded in the nine Hallmarks of Aging, driven by a meticulously curated selection of genetic and biochemical markers, allowing you to uncover your distinct health blueprint and assume control over your well-being like never before

YOUR HEALTH, OUR MISSION

Longevity Lab Solutions is a CLIA Accredited High Complexity Laboratory

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*Longevity, the
pursuit of a
prolonged and
vibrant existence*

This foundational panel provides a comprehensive health assessment

Longevity Signature Blood Test 82 Analytes Tested

General Health

1. CMP
2. Lipid Panel
3. CBC
4. HbA_{1c}

Inflammation

1. CRP
2. Homocysteine
3. Interleukin-1 β (IL-1 β)
4. Interleukin-6 (IL-6)
5. (TNF α)

Oxidative Stress

1. GSSG/GSH
2. ROS
3. iNOS
4. MDA
5. NAD⁺/NADH

Brain

1. Amyloid Beta (A β) 42/40
2. Brain-Derived Neurotrophic Factor (BDNF)
3. Glutamate
4. Klotho
5. P-T181
6. P-T217
7. Total Tau Proteins (t-tau)
8. Tryptophan/Kynurenine Ratio

Micronutrients

1. Vitamin B6
2. Vitamin B₉ (Folate)
3. Active Vitamin B₁₂
4. Vitamin D 25-OH
5. Magnesium

Sleep, saliva

1. Cortisol
2. Melatonin
(4 samples each)

Hormones

1. Cortisol, serum
2. Estradiol
3. Free Testosterone
4. Testosterone
5. Progesterone
6. Insulin
7. IGF-1
8. HCG
9. TSH
10. Free T₃
11. Free T₄

Mitochondrial Dysfunction

1. ATP

Patient Price: \$625.00

Price includes convenient home collection kit, prepaid priority overnight shipping of samples to laboratory



DNA markers to slow down or prevent the aging process

Discover your unique genetic blueprint and uncover tailored recommendations for the most effective diet and exercise plan based on your DNA

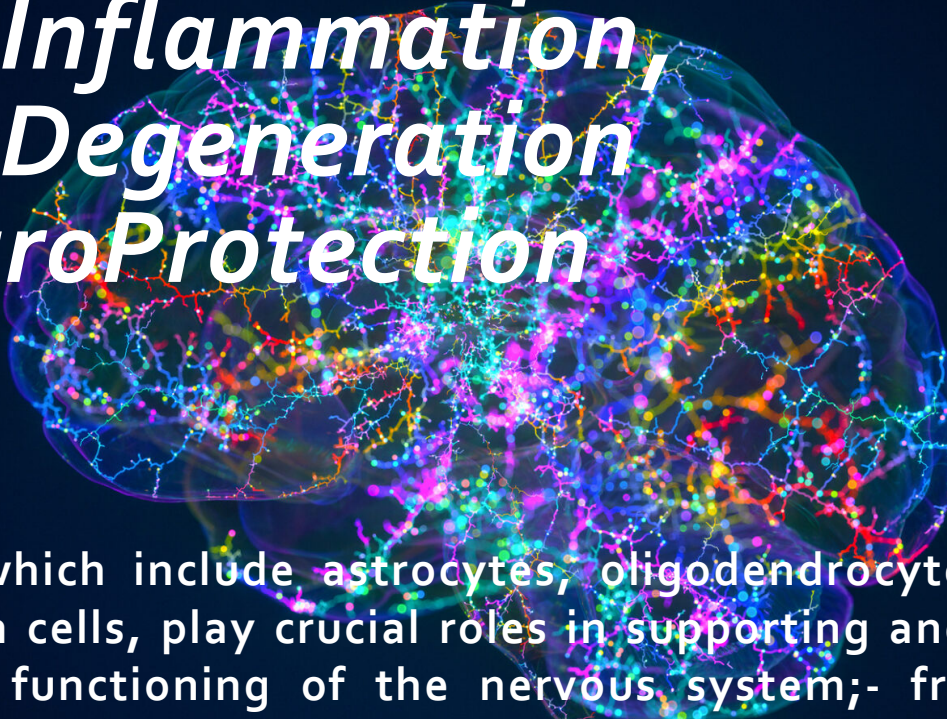
Longevity Signature DNA Test Areas of Analysis Provided by this Test

1. Absorption and Metabolism
2. Carbohydrate Responsiveness
3. Circadian Rhythms
4. Exercise Responsiveness
5. Fat Metabolism
6. Obesity and Satiety
7. Fat Storage
8. Inflammation Diet
9. Regulation of Energy Intake
10. Regulation of Metabolism
11. Feeding Behavior
12. Weight Management
13. Diet and Exercise Plan

Patient Price: \$249.00

Price includes convenient home collection kit, prepaid priority overnight shipping of samples to laboratory

NeuroInflammation, NeuroDegeneration & NeuroProtection



Glial cells, which include astrocytes, oligodendrocytes, microglia, and Schwann cells, play crucial roles in supporting and maintaining the optimal functioning of the nervous system;- from providing structural support and insulation for neurons to participating in immune responses within the brain and peripheral nervous system

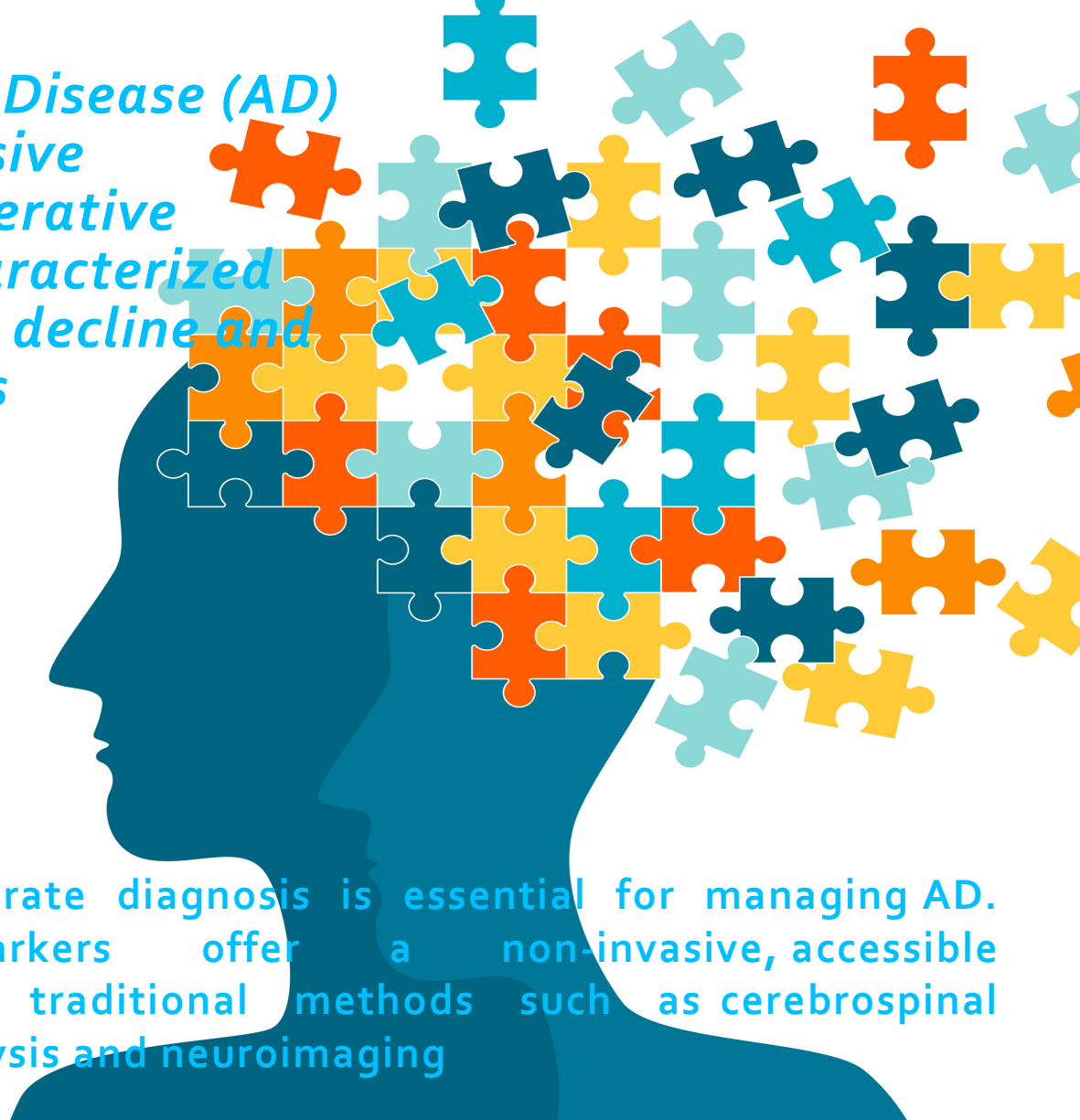
Longevity Brain Glial Blood Test 17 Analytes Tested

1. Alpha-Synuclein
2. Amyloid Beta (A β) Peptides 42/40
3. Brain-Derived Neurotrophic Factor (BDNF)
4. C-Reactive Protein (CRP)
5. Glial Fibrillary Acidic Protein (GFAP)
6. Interleukin-1 β (IL-1 β)
7. Interleukin-6 (IL-6)
8. Interleukin-10 (IL-10)
9. Interferon-gamma (IFN- γ)
10. Matrix Metalloproteinase 8 (MMP8)
11. Neurofilament Light Chain (NFL)
12. Phosphorylated Tau 181 (p-T181)
13. Soluble Triggering Receptor Expressed on Myeloid cells 2 (sTREM2)
14. S100 Calcium-Binding Protein B (S100B)
15. Total Tau Proteins (t-tau)
16. Tumor Necrosis Factor-alpha (TNF- α)
17. YKL-40 (Chitinase 3-like-1)

Patient Price: \$299.00

Price includes convenient home collection kit, prepaid priority overnight shipping of samples to laboratory

Alzheimer's Disease (AD) is a progressive neurodegenerative disorder characterized by cognitive decline and memory loss



Early and accurate diagnosis is essential for managing AD. These biomarkers offer a non-invasive, accessible alternative to traditional methods such as cerebrospinal fluid (CSF) analysis and neuroimaging

Longevity Alzheimer's Disease Blood Test

1. Amyloid Beta (A β) Peptides 42/40
2. Malondialdehyde (MDA)
3. Neurofilament Light Chain (NfL)
4. Phosphorylated Tau (p-T181)
5. Total Tau Proteins (t-tau)

Patient Price: \$249.00

Longevity Alzheimer's Disease DNA Test

1. APOE₄ (Apolipoprotein E₄) Allele Testing

Patient Price: \$99.00

Price includes convenient home collection kit, prepaid priority overnight shipping of samples to laboratory



Oxidative Stress: The spark that lights the fire of aging and disease

Oxidative stress occurs when there's an imbalance between the production of reactive oxygen species (ROS) and the body's ability to detoxify these reactive intermediates repair the resulting damage

Longevity Oxidative Stress Blood Test 11 Analytes Tested

1. GSH/GSSG
2. 8-Isoprostane
3. Malondialdehyde (MDA)
4. NAD/NADH
5. inducible Nitric Oxide Synthase (iNOS)
6. Reactive Oxygen Species (ROS)
7. Peroxidases
8. Superoxide Dismutases (SODs)
9. Advanced Oxidation Protein Products (AOPP)
10. Total Antioxidant Capacity (TAC)
11. Protein Carbonyls, 8-Hydroxy-2-deoxyguanosine (8-OHdG)

Patient Price: \$299.00

Price includes convenient home collection kit, prepaid priority overnight shipping of samples to laboratory



Mitochondrial Dysfunction
*is associated with numerous
age-related diseases*


Strategies aimed at preserving mitochondrial function or replacing damaged mitochondria could delay aging and extend healthy lifespan

Longevity Mitochondria Blood Test 4 Analytes Tested

1. Adenosine Triphosphate (ATP)
2. GSSH/GSM
3. NAD⁺/NADH
4. Reactive Oxygen Species (ROS)

Patient Price: \$199.00

Price includes convenient home collection kit, prepaid priority overnight shipping of samples to laboratory



Inflammation leads to DNA damage, cellular senescence and an impaired immune response. These effects contribute to a decline in tissue and organ function, a hallmark of aging

Tame Inflammation for a Vibrant Life

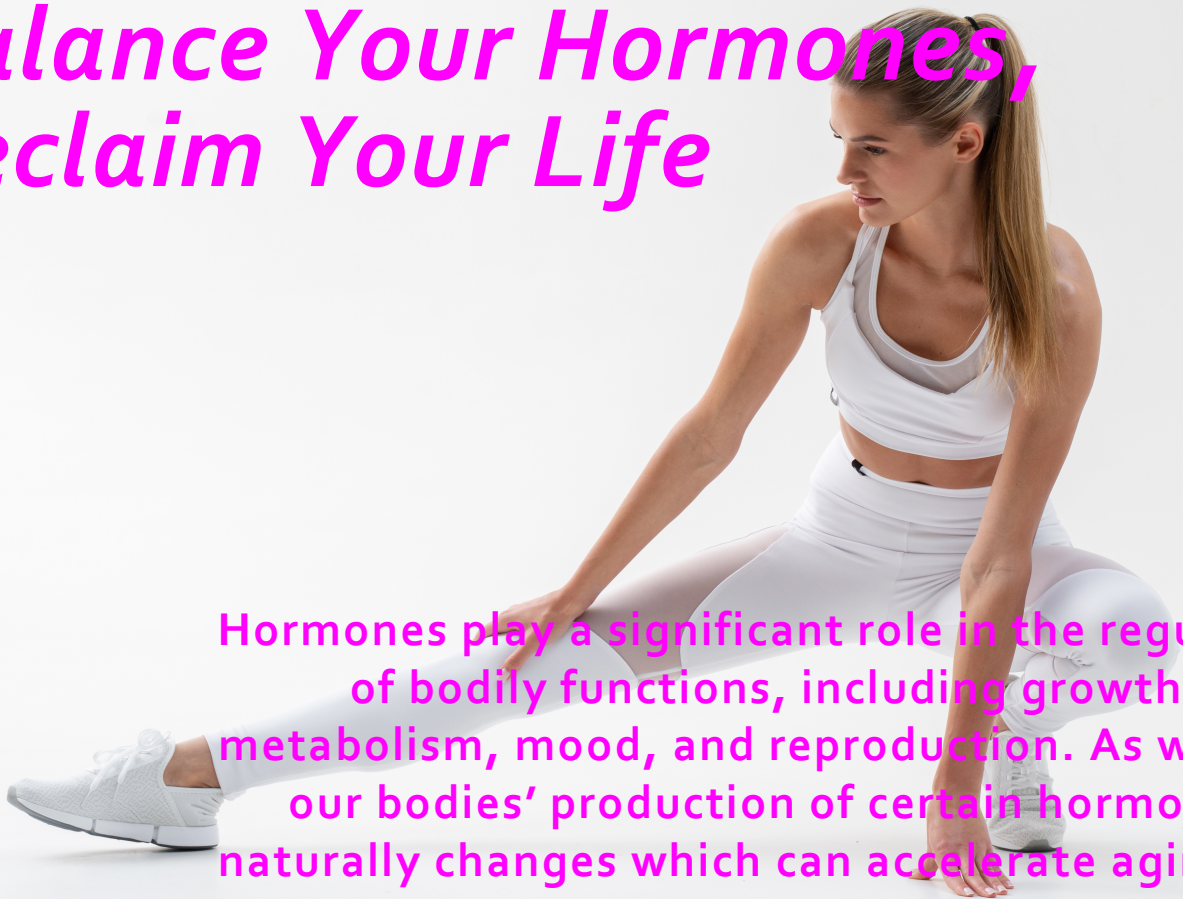
Longevity Inflammation Blood Test 21 Analytes Tested

- | | |
|---|--|
| 1) ANA (Antinuclear Antibodies) | 11) Immunoglobulin G (IgG) |
| 2) Brain-Derived Neurotrophic Factor (BDNF) | 12) Immunoglobulin M (IgM) |
| 3) Creatine Kinase (CK) | 13) Immunoglobulin E (IgE) |
| 4) C-Reactive Protein (CRP) | 14) Interferon Gamma (IFN- γ) |
| 5) Complement 3 (C3) | 15) Interleukin-1 β (IL-1 β) |
| 6) Complement 4 (C4) | 16) Interleukin-6 (IL-6) |
| 7) D-Dimer | 17) Interleukin-10 (IL-10) |
| 8) Ferritin | 18) Reactive Oxygen Species (ROS) |
| 9) Homocysteine | 19) Rheumatoid Factor (RF) |
| 10) Immunoglobulin A (IgA) | 20) TNF α (Tumor Necrosis Factor-Alpha) |
| | 21) TPO Antibodies |

Patient Price: \$299.00

Price includes convenient home collection kit, prepaid priority overnight shipping of samples to laboratory

Balance Your Hormones, Reclaim Your Life



Hormones play a significant role in the regulation of bodily functions, including growth, metabolism, mood, and reproduction. As we age, our bodies' production of certain hormones naturally changes which can accelerate aging and increase disease risk.

Longevity Hormone Blood Test 24 Analytes Tested

- 1) Cortisol
- 2) DHEA-S
(Dehydroepiandrosterone Sulfate)
- 3) DHT (Dihydrotestosterone)
- 4) Estradiol
- 5) Estriol
- 6) Estrone
- 7) FH (Follicle-Stimulating Hormone)
- 8) GH (Growth Hormone)
- 9) IGF-1 (Insulin-Like Growth Factor-1)
- 10) Insulin
- 11) LH (Luteinizing Hormone)
- 12) Pregnenolone
- 13) Progesterone
- 14) Prolactin
- 15) SHBG (Sex Hormone Binding Globulin)
- 16) Testosterone
- 17) Free Testosterone
- 18) % Free Testosterone
- 19) % Bioavailable Testosterone
- 20) TSH (Thyroid Stimulating Hormone)
- 21) Free T₃ (Triiodothyronine)
- 22) Free T₄ (Thyroxine)
- 23) Reverse T₃
- 24) Thyroglobulin

Patient Price: \$299.00

Price includes convenient home collection kit, prepaid priority overnight shipping of samples to laboratory

Discover the Nutritional Edge: Elevate Your Health with Micronutrients!



Micronutrients, which include vitamins and minerals, play critical roles in maintaining health and promoting longevity. They are involved in functioning of the immune & nervous system, energy production, bone health, and DNA synthesis and repair.

Longevity Micronutrients Blood Test 14 Analytes Tested

- | | |
|----------------------------|-----------------|
| 1) Vitamin B2 (Riboflavin) | 8) Magnesium |
| 2) Vitamin B6 (Pyridoxine) | 9) Calcium |
| 3) Vitamin B9 (Folate) | 10) Potassium |
| 4) Vitamin B12 (Cobalamin) | 11) Phosphorous |
| 5) Active Vitamin B12 | 12) Copper |
| 6) Vitamin D 25-OH | 13) Zinc |
| 7) Iron | 14) Selenium |

Patient Price: \$249.00

Price includes convenient home collection kit, prepaid priority overnight shipping of samples to laboratory

It All Starts With A Good Night's Sleep

Sleep is a critical factor for overall health and well-being and plays a significant role in longevity. It provides the body and brain the opportunity to rest, regenerate, and repair, making it essential for maintaining optimal health

Longevity Sleep Hygiene Test (Basic) 2 Analytes Tested

- 1) Cortisol (4 saliva samples collected)
 - a) morning upon waking (cortisol level is highest)
 - b) midday
 - c) early evening at 7:00 pm
 - d) late evening at 11:30 pm (cortisol level is lowest)
- 2) Melatonin (2 saliva samples collected)
 - a) morning upon waking (melatonin level is lower)
 - b) late evening at 11:30 pm (melatonin level is higher)

Patient Price: \$149.00

Price includes convenient home collection kit, prepaid priority overnight shipping of samples to laboratory

Nine Hallmarks Of Aging

Primary Hallmarks Of Aging: Foundational Causes Of Cellular Damage

Genomic Instability

AS WE AGE, OUR CELLS ACCUMULATE DNA MUTATIONS, WHICH CAN LEAD TO A VARIETY OF AGE-RELATED DISEASES, INCLUDING CANCER.

Telomere Attrition

EACH TIME A CELL DIVIDES, ITS TELOMERES (THE PROTECTIVE CAPS ON THE ENDS OF CHROMOSOMES) SHORTEN. WHEN TELOMERES BECOME CRITICALLY SHORT, CELLS BECOME SENESCENT OR DIE.

Epigenetic Alterations

EPIGENETICS REFERS TO CHANGES IN GENE EXPRESSION THAT DO NOT INVOLVE CHANGES TO THE UNDERLYING DNA SEQUENCE. AGE-RELATED EPIGENETIC CHANGES AFFECTS MANY BIOLOGICAL PROCESSES.

Loss of Proteostasis

PROTEOSTASIS REFERS TO THE BALANCE OF PROTEINS IN THE BODY. AS WE AGE, OUR BODIES BECOME LESS EFFECTIVE AT PROTEIN MAINTENANCE, LEADING TO THE ACCUMULATION OF MISFOLDED OR DAMAGED PROTEINS.

Responsive Or Compensatory Hallmarks Of Aging: Result Of The Primary Hallmarks

Deregulated Nutrient Sensing

AGING IS ASSOCIATED WITH CHANGES IN THE BODY'S RESPONSE TO NUTRIENTS, WHICH AFFECTS CELLULAR FUNCTION AND METABOLISM.

Mitochondrial Dysfunction

MITOCHONDRIA PRODUCE THE ENERGY THAT CELLS NEED TO FUNCTION. AGING RESULTS IN DECREASED MITOCHONDRIAL FUNCTION AND INCREASED PRODUCTION OF REACTIVE OXYGEN SPECIES, WHICH DAMAGES CELLS.

Cellular Senescence

SENESCENT CELLS LOSE THEIR ABILITY TO DIVIDE BUT REMAIN METABOLICALLY ACTIVE. THESE CELLS CAN CONTRIBUTE TO INFLAMMATION AND OTHER ASPECTS OF AGING.

Integrative Hallmarks Of Aging: Ultimately Lead To The Functional Decline Observed With Aging

Stem Cell Exhaustion

AS WE AGE, OUR STEM CELLS' ABILITY TO REPAIR AND REGENERATE TISSUES DECREASES, LEADING TO A DECLINE IN ORGAN FUNCTION.

Altered Intercellular Communication

AGING AFFECTS THE COMMUNICATION BETWEEN CELLS, LEADING TO INFLAMMATION, IMMUNE DYSFUNCTION, AND OTHER PROBLEMS.