

# 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 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 NutriCare is a CLIA Accredited Laboratory 6605 Cypresswood Drive, Suite 125, Spring, Texas 77379



This foundational panel provides a comprehensive health assessment of key biomarkers, delivering vital insights to tailor your health strategy and optimize your well-being

# **Longevity Signature Blood Test**

#### **General Health**

- 1. CMP
- 2. HbA<sub>1</sub>C

#### Inflammation

- 1. CRP-HS
- 2. Homocysteine
- 3. Creatine Kinase
- 4. LDH
- 5. Uric Acid

1. Zonulin

## Mitochondrial **Dysfunction**

1. ROS

#### **Oxidative Stress**

1. Glutathione

#### **Telomere Length**

1. Telomerase

# **60 Analytes Tested**

- 1. Amyloid Beta (Aβ) 42/40
- 2. Brain-Derived Neurotrophic Factor (BDNF)
- 3. Total Tau Proteins (t-tau)
- 4. Total Phosphorylated Tau Proteins (p-tau)

Additional

**Hormones** 

For Men

2. Bioavailable

**Testosterone** 

**Testosterone** 

**Testosterone** 

3. % Bioavailable

1. Free

4. SHBG

#### Micronutrients

- 1. Vitamin B2
- 2. Vitamin B6
- 3. Vitamin B9 (Folate)
- 4. Active Vitamin B<sub>12</sub>
- 5. Vitamin D 25-OH
- 6. Magnesium
- 7. Phosphorous

#### Heart

- Lipid Panel
- 2. Lipoprotein a (LPa)
- 3. Apolipoprotein A1 (ApoA1)
- 4. Apolipoprotein B (ApoB)

## **Hormones**

- 1. Cortisol
- 2. DHEA-S
- 3. Estradiol
- 4. Testosterone
- 5. Progesterone
- 6. Insulin
- 7. HCG
- 8. TSH
- 9. Free T<sub>3</sub>
- 10. Free T4

# **Additional Hormones**

## For Women

- 1. FSH
- 2. LH
- 3. Prolactin

Patient Price: \$499.00



# Longevity Men's Health Blood Test 8 Analytes Tested

- 1) Cortisol
- 2) Sex Hormone Binding Globulin (SHBG)
- 3) Testosterone
- 4) Free Testosterone
- 5) % Free Testosterone
- 6) % Bioavailable Testosterone
- 7) Prostate Cancer Screening:
  - a) Prostate Specific Antigen (PSA)
  - b) % Free PSA

Patient Price: \$199.00

Balance Your Hormonic 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 T<sub>3</sub> (Triiodothyronine)
- 22) Free T4 (Thyroxine)
- 23) Reverse T3
- 24) Thyroglobulin

# 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)
- 2) Vitamin B6 (Pyridoxine)
- 3) Vitamin B9 (Folate)
- 4) Vitamin B12 (Cobalamin)
- 5) Active Vitamin B12
- 6) Vitamin D 25-OH
- 7) Iron

- 8) Magnesium
- 9) Calcium
- 10) Potassium
- 11) Phosphorous
- 12) Copper
- 13) Zinc
- 14) Selenium

Patient Price: \$249.00



# Longevity Weight Loss Blood Test 60 Analytes Tested

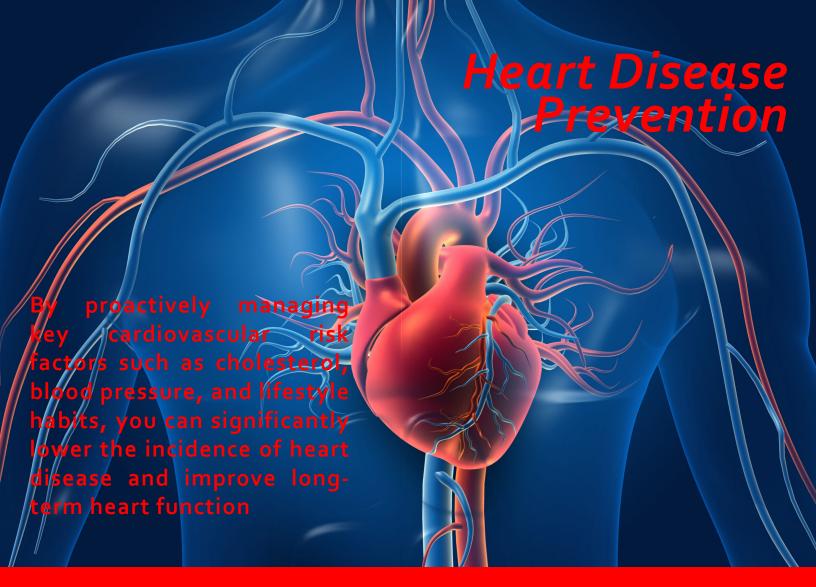
- 1)Complete Metabolic Panel, CMP (18 analytes)
- 19) Complete Blood Count, CBC (21 analytes)
- 41) Lipid Panel (6 analytes)
- 48) C-Reactive Protein High Sensitivity, (CRPhs)
- 49) Cortisol
- 50) Estradiol
- 51) Gamma-glutamyl transferase (GGT)
- 52) HbA1C
- 53) Insulin
- 54) Iron
- 55) Lactic Acid Dehydrogenase (LDH)
- 56) Thyroid Stimulating Hormone (TSH)
- 57) Free T<sub>3</sub>
- 58) Free T4
- 59) Phosphorous
- 6o) Uric Acid

Patient Price: \$235.00



# Longevity Inflammation Blood Test 12 Analytes Tested

- 1) ANA (Antinuclear Antibodies)
- 2) Brain-Derived Neurotrophic Factor (BDNF)
- 3) C-Reactive Protein High Sensitivity (CRPhs)
- 4) D-Dimer
- 5) Homocysteine
- 6) Interferon Gamma (IFN-γ)
- 7) Interleukin-1β (IL-1β
- 8) Interleukin-4 (IL-4)
- 9) Interleukin-6 (IL-6)
- 10) Interleukin-10 (IL-10)
- 11) Reactive Oxygen Species (ROS)
- 12) TNFα (Tumor Necrosis Factor-Alpha)



# Longevity Heart Blood Test 12 Analytes Tested

- 1) Lipid Panel (5 analytes)
- 6) LDL measured
- 7) Lipoprotein(a) (Lp(a)
- 8) Apolipoprotein A1 (ApoA1),
- 9)Apolipoprotein B (ApoB),
- 10) Malondialdehyde (MDA),
- 11) Creatine Kinase (CK),
- 12) C-Reactive Protein High Sensitivity (CRP-HS)

Patient Price: \$199.00



# Longevity Gut Blood Test 2 Analytes Tested

- 1) Calprotectin
- 2) Zonulin

Patient Price: \$199.00

# Longevity Celiac Disease Blood Test 5 Analytes Tested

- 1) Deamidated Gliadin Peptide (DGP) Antibodies IgA
- 2) Deamidated Gliadin Peptide (DGP) Antibodies IgG
- 3) Tissue Transglutaminase (tTG) Antibodies IgA
- 4) Tissue Transglutaminase (tTG) Antibodies IgG
- 5) Total IgA

Patient Price: \$235.00



# Longevity Diabetes Blood Test 45 Analytes Tested

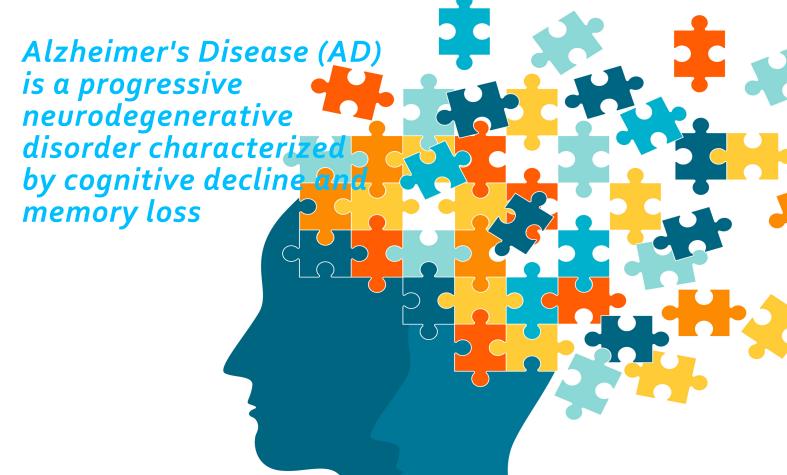
- 1)Comprehensive Metabolic Panel, CMP (18 analytes)
- 19) Lipid Panel (6 analytes)
- 26) HbA1C
- 27) Cortisol
- 28) Estradiol
- 29) Sex Hormone Binding Globulin (SHBG)
- 30) Total Testosterone
- 31) Free Testosterone
- 32) Insulin
- 33) Insulin-Like Growth Factor 1 (IGF-1)
- 34) Follicle-Stimulating Hormone (FSH)

- 35) Luteinizing Hormone (LH)
- 36) Thyroid Stimulating Hormone (TSH)
- 37) Free T3
- 38) Free T4
- 39) Folate (Vitamin B9)
- 40) Vitamin B<sub>12</sub>
- 41) Vitamin D
- 42) Magnesium
- 43) C-Reactive Protein, High Sensitivity (CRP-HS)
- 44) Apolipoprotein B (APOb)
- 45) Lipoprotein(a) (Lp(a))



# Longevity Cancer Risk Blood Test 14 Analytes Tested

- 1) Alpha-FetoProtein (AFP)
- 2) Human Chorionic Gonadotropin (HCG)
- 3) Carcinoembryonic Antigen (CEA)
- 4) Neuron-Specific Enolase (NSE)
- 5) Beta-2-Microglobulin (B2M)
- 6) CA 125 (Cancer Antigen 125)
- 7) CA 15.3 (Cancer Antigen 15.3)
- 8) CA 27.29 (Cancer Antigen 27.29)
- 9) CA 19.9 (Cancer Antigen 19.9)
- 10) Prostate-Specific Antigen (PSA) Total
- 11) Prostate-Specific Antigen (PSA) Free
- 12) LDH (Lactate Dehydrogenase)
- 13) Calcitonin
- 14) Thyroglobulin



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

- Amyloid Beta (Aβ) Peptides 42/40
- 2. Brain-Derived Neurotrophic Factor (BDNF)
- 3. Phosphorylated Tau 181 (p-T181)
- 4. Total Tau Proteins (t-tau)
- 5. Total Phosphorylated Tau (tp-tau)

Patient Price: \$299.00

# Longevity Alzheimer's Disease DNA Test

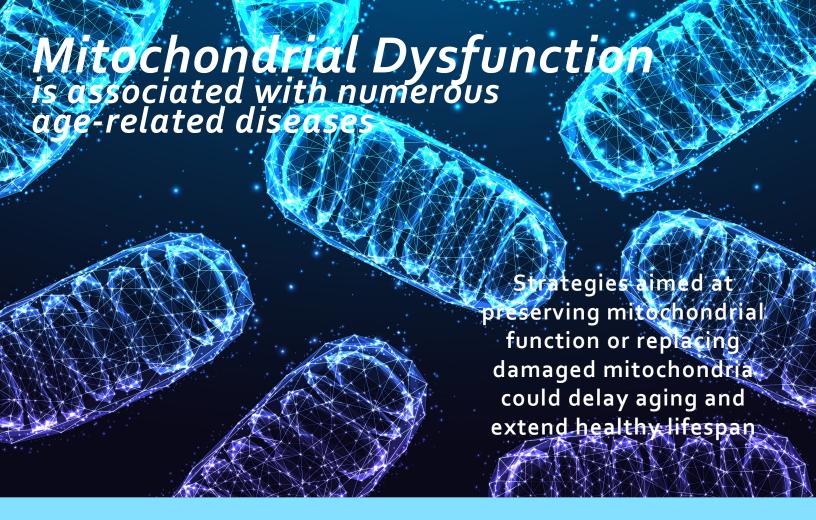
1. APOE4 (Apolipoprotein E4) Allele Testing

# 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 7 Analytes Tested

- 1. Glutathione
- 2. Malondialdehyde (MDA)
- 3. Reactive Oxygen Species (ROS)
- 4. Superoxide Dismutases (SODs)
- 5. Advanced Glycation End Products (AGES)
- 6. Total Antioxidant Capacity (TAC)
- 7. 8-Hydroxy-2-deoxyguanosine (8-OHdG)



# Longevity Mitochondria Blood Test 5 Analytes Tested

- Adenosine Triphosphate (ATP)
- 2. Glutathione
- 3. NAD+/NADH
- 4. Reactive Oxygen Species (ROS)

Patient Price: \$259.00



# Longevity Sleep Hygiene Test (Basic) 2 Analytes Tested

- 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: \$179.00

# **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.