AgeNexus

Biological Age Management

Patient: **Doe, John**

Accession ID: 2110050105

Provider: Sample Provider, MD

Order Status: Complete

6030 North Course Drive, Houston, TX 77072
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PATIENT

NAME	AGE
Doe, John	**51**
DOB	**GENDER**
10/16/1973	**Male**
PATIENT ID	
00-000-00000	

SPECIMEN

ACCESSION ID	DATE COLLECTED
0000000000	**08/07/2025**
ORDER ID	**DATE RECEIVED**
0000-00000000000-000000	**08/11/2025**
	DATE REPORTED
	08/20/2025

PROVIDER

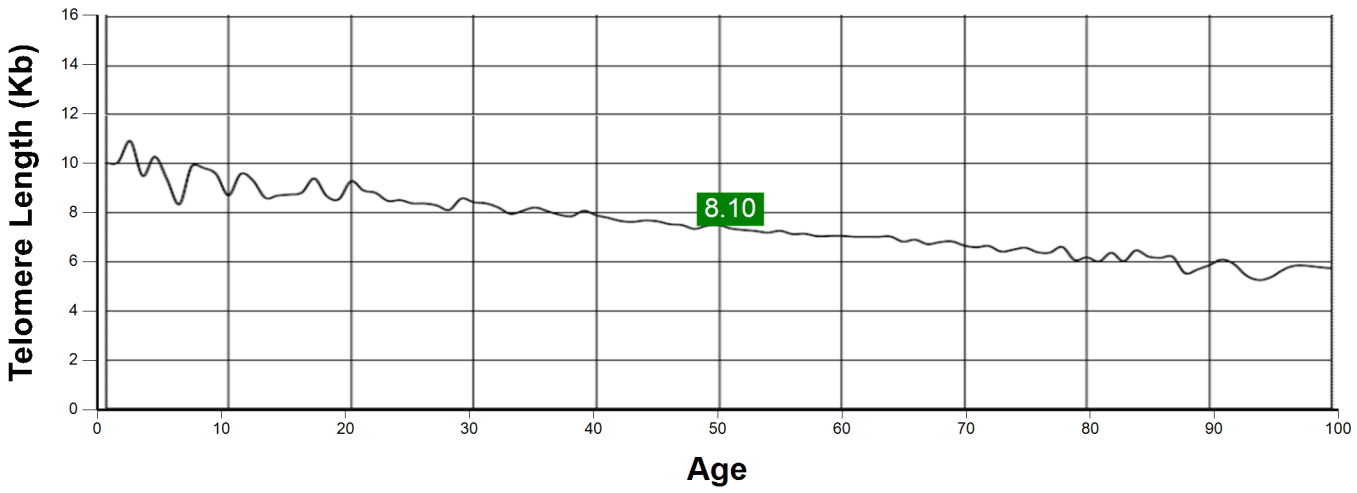
ACCOUNT ID	CLIENT NAME
00000000	**Sample Provider, M.D.**
ADDRESS	
123 S. Any Street **ANYWHERE, TX 77000**	

Order Comments:

Telomere

Tests	Results	Units
Telomere Length (Average)	8.10	Kb
Telomere Percentile (Relative to others in the same age group)	73.00	%

Telomere Test Results



qPCR-Based Telomere Length Report

Test Description:
Your Telomere Result is derived by measuring telomeres in nucleated white blood cells and calculating the average telomere length of these cells, which are obtained from whole blood via venipuncture.

This report provides a determination of average telomere length (in kilobases) in the patient's genomic DNA extracted from the provided sample using a quantitative polymerase chain reaction (qPCR) assay. The assay measures the telomere-to-single-copy-gene (T/S) ratio, which reflects the average telomere length relative to a reference gene. This laboratory developed test (LDT) is intended for informational purposes and to provide insight into cellular aging as part of a broader health assessment.

Telomere length is a biomarker associated with cellular aging, stress response, and potential predisposition to certain age-related conditions (e.g., cardiovascular disease, immune dysfunction, cancer, etc.) in numerous clinical studies. Telomere length may also be influenced by the activity of telomerase, the enzyme that repairs and extends telomeres.

PATIENT: **Doe, John** PROVIDER: **Sample Provider, M.D.** DATE REPORTED: **08/20/2025** ACCESSION ID: **0000000000**

Interpretation:
- An above Average Telomere Length and/or percentile, indicated by a green box, above the population mean may suggest relatively maintained telomere length, and may be associated with slower cellular aging or resilience to certain stressors. However, this does not guarantee protection from disease.

- A below Average Telomere Length and/or percentile, indicated by a red box, may indicate accelerated telomere shortening, which has been associated with increased risk of age-related diseases, chronic stress, or genetic predispositions. This finding should be interpreted cautiously and in the context of other clinical and lifestyle factors.

Disclaimer/Test limitations
Telomere length varies naturally between individuals, cell types and chromosomes and may be influenced by genetics, age, lifestyle, and environmental factors. Consequently, results may not reflect absolute telomere length or telomere length in specific cell types. qPCR-based measurements have inherent variability, and small changes in telomere length over time may not be reliably detected due to assay variability. Longitudinal trends should be interpreted cautiously and confirmed with repeated measurements.

Telomere length is not a diagnostic test for specific diseases but may serve as a general biomarker of cellular health. Results should not be used in isolation to predict health outcomes or guide medical decisions. This test does not account for or determine all contributing factors to telomere health. Results should be discussed with a healthcare provider to integrate findings with other clinical data.

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Your Micronutrient Results Summary

These nutritional deficiencies may impact cellular health and telomere length.

Functional Deficiencies

Abnormal	Suggested Supplementation *
Calcium	500 mg b.i.d. (1000 mg daily) as citrate, malate, ascorbate or glycinate
Carnitine	1000 mg daily L-Carnitine or Acetyl L-Carnitine
Glutathione	600 mg b.i.d. (1200 mg daily) of N-Acetylcysteine (NAC) Take each dose with a meal
Immunidex	Address individual micronutrient deficiencies.
Magnesium	150 mg b.i.d. (300 mg daily) as aspartate, citrate, lysinate, glycinate, or malate
Zinc	25 mg daily

Borderline Deficiencies

Borderline
Asparagine
Manganese
Selenium

* SpectraCell is a CLIA certified laboratory that reports functional micronutrient deficiencies in an individuals' cells, which is the purpose of this report. It is not intended to diagnose or treat specific medical conditions. The quality and bio-availability of supplements varies considerably and should be taken into account when developing a repletion regimen.

* The RDA (Recommended Daily Allowance) was first published in 1968 primarily for use in nutritional labeling of packaged foods. The DRI (Dietary Reference Intake), published in 1997, serves as replacements for the former RDA, although the actual values are generally within an order of magnitude, and are also primarily for use in nutritional labeling and fortification of packaged foods. In most cases, neither the RDA nor the DRI will be adequate to replete a nutrient in people who demonstrate a functional cellular deficiency of said nutrient. An evidence based approach was used to develop clinically relevant repletion recommendations, consisting of data from published studies and clinician expertise. However, the information presented is not intended nor implied to be a substitute for professional medical advice, diagnosis or treatment.

* Listed repletion suggestions are for patients 12 and older.

* For more information on nutrients (food sources, symptoms of deficiency, physiological functions), go to www.spectracell.com.

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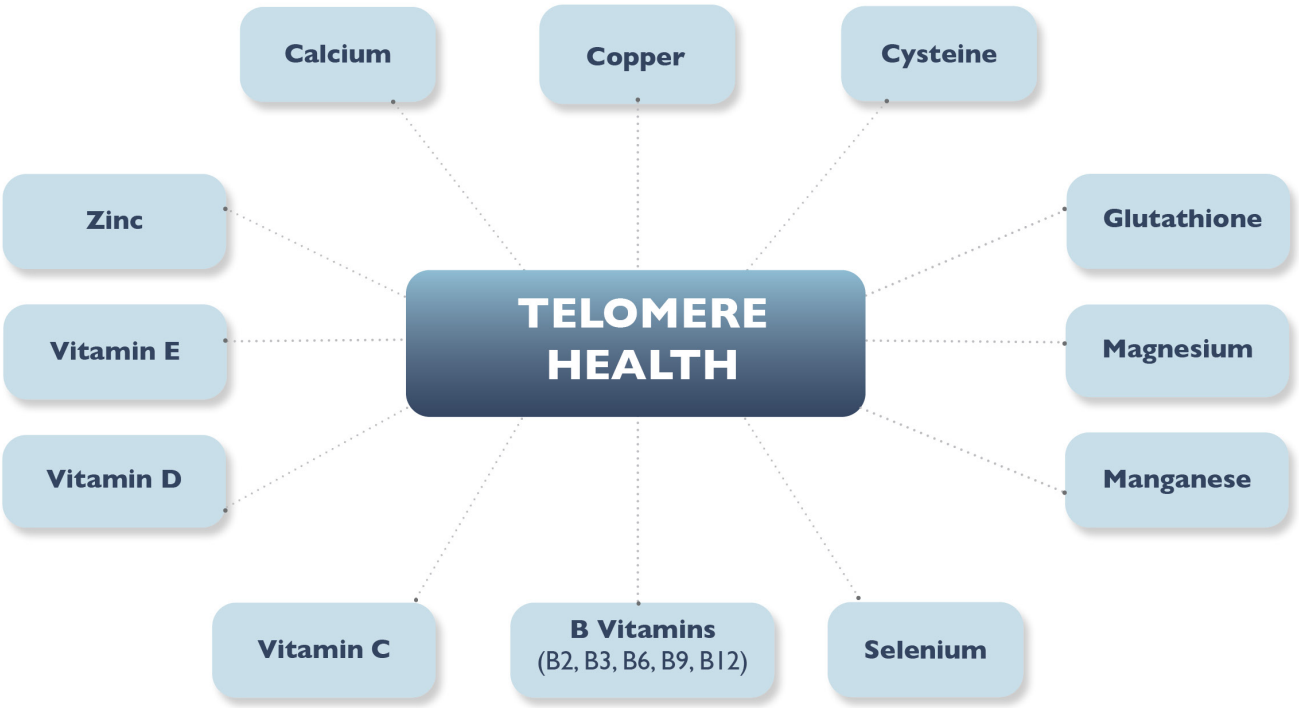
Micronutrients	Patient Results	Reference Range	Patient Result	Interpretation
VITAMINS				
Vitamin A		>70%	79	
Vitamin B1 (thiamine)		>78%	92	
Vitamin B2 (riboflavin)		>53%	65	
Vitamin B3 (niacin)		>80%	98	
Choline		>20%	29	
Pantothenate		>7%	14	
Vitamin B6 (pyridoxine)		>54%	64	
Biotin		>34%	50	
Inositol		>58%	71	
Folate		>32%	46	
Vitamin B12 (cobalamin)		>14%	23	
Vitamin D3		>50%	62	
Vitamin K2		>30%	54	
MINERALS				
Calcium		>38%	35	Deficient
Chromium		>40%	50	
Copper		>42%	54	
Magnesium		>37%	35	Deficient
Manganese		>50%	59	Borderline
Selenium		>74%	77	Borderline
Zinc		>37%	37	Deficient
AMINO ACIDS AND METABOLITES				
Asparagine		>39%	41	Borderline
Carnitine		>46%	46	Deficient
Cysteine		>41%	49	
Glutamine		>37%	52	
Serine		>30%	38	
Oleic Acid		>65%	72	
ANTIOXIDANTS				
Coenzyme Q10		>86%	92	
Glutathione		>42%	40	Deficient
Alpha Lipoic Acid		>81%	85	
Vitamin C		>40%	65	
Vitamin E		>84%	88	
CARBOHYDRATE METABOLISM				
Fructose Sensitivity		>34%	47	
Glucose-Insulin Interaction		>38%	55	
CELL HEALTH				
Spectrox		>40-86%	40	Deficient
Immunidex		>40-86%	39	Deficient

Micronutrients Influencing Biological Age



Calcium - Required cofactor to prevent DNA replication errors which can shorten telomeres.

Copper - Key mineral in a powerful antioxidant that is known to protect telomeres.

Cysteine - Precursor to glutathione that corrects DNA damage in telomeres.

Glutathione - Very powerful antioxidant that, when deficient, can accelerate telomere erosion

Magnesium - Studies show deficiency can shorten telomeres

Manganese - Cofactor to a powerful biological enzyme that preserves telomere length

Selenium - Research suggests repletion may actually extend telomeres.

Vitamin B2 - Regenerates the powerful antioxidant glutathione.

Vitamin B3 - Protects telomeres by reducing oxidative stress inside cells; extends lifespan on human cells in vitro.

Vitamin B6 - Quells inflammation that harms telomeres if left unchecked.

Vitamin B9 - Key nutrient in the synthesis of nucleic acids, of which telomeres are made.

Vitamin B12 - Keeps DNA in our cells structurally intact.

Vitamin C - Slows age-related telomere shortening in human cells.

Vitamin D - Sufficient levels linked to longer telomeres due to its anti-inflammatory role.

Vitamin E - Repairs DNA, removes damaged DNA and consequently restores telomere length.

Zinc - Necessary to repair DNA damaged by inflammation, thus preserving telomeres

This list is non-exhaustive. Other nutrients affect telomere length.