



TELOMERES MEASUREMENT AND
BIOLOGICAL AGE ESTIMATION
WITH EVALUATION OF BAFF

MEDICAL REPORT

PROTEIN

What is Protein?

Protein is a complex molecule that is essential for life. It is made up of amino acids, which are the building blocks of all the molecules in your body. Protein is also a great source of energy.

Protein is also important for your immune system. It helps your body fight off infections and diseases.

Protein is also important for your muscles. It helps your muscles grow and repair themselves.

Protein is also important for your brain. It helps your brain function properly and keeps you alert.

Protein is also important for your skin. It helps your skin stay healthy and youthful.

You will be able to read all the contents within your report



Dr. Anita Sanyal MD
Chief Executive Officer and Chief Medical Officer



IF I HAVE PROBLEMS OR QUESTIONS, WHO DO I CONTACT?

For more information, please contact our support team at support@bioage.com or call 1-800-850-8500. You can also visit our website at <http://www.bioage.com>.

www.bioage.com

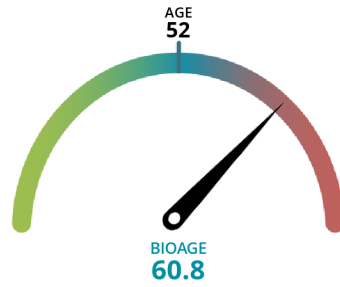


BE YOUR OWN BOSS. TEST WITH A 20% DISCOUNT.

It's time to take control of your health. BioAge is now offering a 20% discount on all tests. This is a limited time offer. Don't miss out. Order your test today.



RESULTS



Telomere length **5.80 kb**

Note: Average telomere length of the leukocyte population (LTL) expressed in kilobases (Kb). The estimation of telomere length in Kb was performed according to the methods of O'Callaghan^(B24) and Calado^(B25).

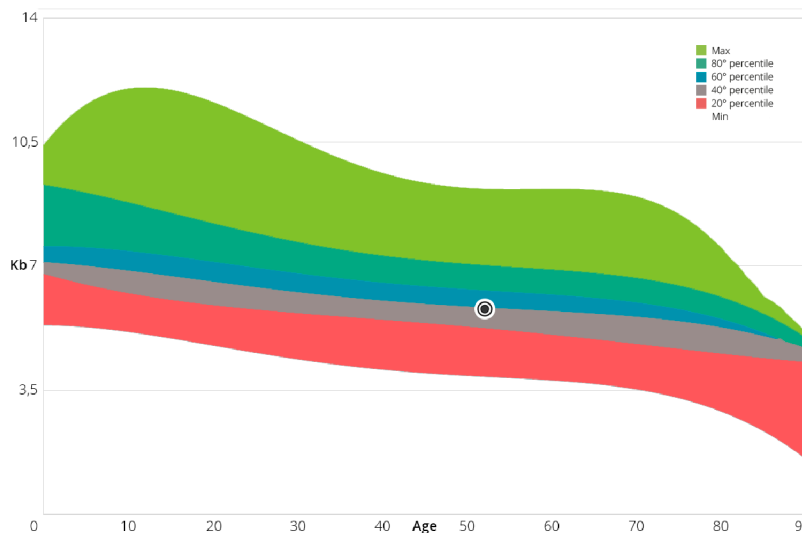
The LTL is a true indicator of a person's BioAge. The longer the telomeres remain, the younger our cells are, ensuring us a better health status. Regardless of chronological age, the speed of telomere shortening is a partially modifiable factor that strictly depends on a person's lifestyle. The test result captures the effects of your past and recent lifestyle.

Your test result indicates that your BioAge is higher than your chronological age, as if to say that your body is much older than what your identity card states.

A lifestyle change is greatly recommended. The most effective actions to improve your personal journey in slowing down the ageing process are the evaluation of sugar- and food-related inflammation, the use of supplements with antioxidant function, and adequate physical activity. All of these measures have a documented positive action in modifying this process.

It is important to monitor any changes and the speed of telomere shortening over the time. Periodically repeating this test (for example after 12-18 months) allows you to keep track of any changes that may have occurred and detect any anomalies that deserve correction.

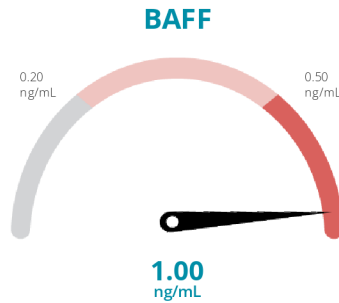
In the event of particular pathologies in progress, it is advisable to refer to your trusted doctor for a more precise check.



Distribution graph

The graph represents the distribution of the mean telomeric length values of the reference population. The reference database was created by GEK and is constantly updated and expanded in order to provide increasingly precise information. Each band represents 20 percentiles and pinpoint indicates your position. Bands above the center line indicate a higher than average telomere length compared to the reference population.

DIAGNOSIS OF THE INFLAMMATION LEVELS



The results indicate the presence of a **high-level inflammatory condition**, which could also be related to diet considering the relationship between BAFF, immune activation, food inflammation, and metabolic alterations. Therefore, a dietary adjustment to restore balance may be recommended.

WHAT IS BAFF AND WHY MEASURE IT

The production of BAFF depends on the immune response to external and endogenous stimuli. As explained by Lied, diet plays a primary role, and repeated exposure to the same foods contributes to maintaining elevated BAFF levels.

BAFF is involved in many defense processes of the body and is strongly implicated in regulating antibody production. An unjustified increase in BAFF, for example, can lead to excessive production of autoantibodies, promoting the development of autoimmune diseases.

BAFF can play a role in many of the most common diseases and disorders today, involving the skin, joints, muscles, endocrine system, and metabolism. Controlling the increase of BAFF is a clinically significant tool for proper and effective prevention of these diseases.

Therefore, the levels of BAFF measured and currently present in your body largely depend on environmental factors, and the way you eat also plays a determining role. BAFF, in fact, increases when a food or groups of immunologically similar foods are consumed excessively or repeatedly over time.

An individualized nutritional approach, based on the evaluation of the Personal Food Profile, reduces symptoms related to inflammatory status^(F41) and contributes to modulating the levels of this cytokine and controlling its multiple clinical effects.



POSSIBLE INTERVENTIONS

Factors influencing the BioAge and possible interventions

There are several factors that can negatively affect the BioAge. Below are the most common ones along with practical strategies to control them.

- Systemic inflammation - Excessive consumption of sugars - Unbalanced diet - Smoking - Stress and sleep - Obesity and BMI - Physical activity (little or too much)

Factors influencing the LTL and practical control tools



Systemic inflammation

Chronic systemic inflammation is a promoter of biological aging and is responsible for telomere shortening in all somatic cells, including leukocytes. Specifically, "older" immune cells with critically shorter telomeres produce pro-inflammatory cytokines^(B17), a process known as "inflammaging". Excessive or frequent intake of certain foods or food groups, as well as sugars, can influence telomere biology^(B11,B15,B28).

What can I do: verifying the possible presence of inflammation related to food and sugars and implementing a personalized diet are effective strategies to counteract this cause of telomere shortening.



Excess sugars and refined carbohydrates

Regular consumption of sugars (including those from fruit), sweeteners, alcohol and/or refined carbohydrates promotes inflammation and the production of glycation compounds, a process that leads to oxidative stress and cellular aging^(B64).

What can I do: understanding one's levels of glycation through the measurement of glycated albumin and methylglyoxal can highlight the presence of sugar-related inflammation and guide appropriate dietary modifications. Avoiding regular consumption of sugary or sweetened products and opting for whole carbohydrates are helpful habits for reducing inflammation and telomere shortening.



Imbalanced diet

Frequent and/or excessive consumption of certain foods or food groups can stimulate the secretion of pro-inflammatory cytokines (including BAFF) that maintain a low-grade systemic inflammatory response. This can influence the body and the telomere length in a negative way.

What can I do: measuring levels of low-grade chronic inflammation and assessing one's dietary profile can help identify excessive dietary repetition and guide the implementation of a personalized rotation diet. This approach has the beneficial effect of reducing telomere shortening.



Smoking

Regular smoking is an inducer of inflammation and oxidative stress, which naturally correlates with telomere shortening. This has been extensively confirmed by a systematic review analyzing 84 studies, which highlights that telomeres are shorter in smokers compared to those who have never smoked or are ex-smokers^(B55,B56).

What can I do: the best course of action is to quit smoking entirely, as it is the wisest choice. However, since quitting addiction is not always easy, it is advisable to at least begin reducing cigarette consumption as soon as possible^(B57).

RESULTS SUMMARY

- 1. Blood and energy**
Your body's energy levels are low, which is often associated with a low level of energy expenditure. This is due to the fact that the body is not able to burn its stored energy through metabolic pathways. It is also possible that your body is not able to burn its stored energy through metabolic pathways. It is also possible that your body is not able to burn its stored energy through metabolic pathways.
- 2. Energy metabolism, oxidative stress, and cellular senescence**
Your body's energy metabolism is low, which is often associated with a low level of energy expenditure. This is due to the fact that the body is not able to burn its stored energy through metabolic pathways. It is also possible that your body is not able to burn its stored energy through metabolic pathways. It is also possible that your body is not able to burn its stored energy through metabolic pathways.

You will be able to read all the contents within your report

REPORT CONTENTS

- 1. What is a nutrient?**

A nutrient is any one of the substances found in food necessary for growth, development, and maintenance of the body. Some nutrients are essential for life, while others are not. The body uses nutrients to build and repair tissues, produce energy, and regulate body functions.
- 2. Why are nutrients important?**

Nutrients are essential for the body to function properly. They provide the energy and building blocks needed for growth, development, and maintenance of the body. A deficiency of any nutrient can lead to various health problems, such as malnutrition, obesity, and chronic diseases.
- 3. Why is it important to know a person's diet?**

Knowing a person's diet is important because it helps to identify any nutrient deficiencies or excesses. This information can be used to develop a personalized nutrition plan that meets the individual's needs and promotes overall health and well-being.

You will be able to read all the contents within your report

- 4. How to report the diet?**

The diet should be reported in a clear and concise manner. It should include the type of food, the amount, and the frequency of consumption. It is also important to note any special dietary requirements or restrictions.

REPORT SUMMARY

Executive Summary

Executive Summary: This report provides a comprehensive overview of your nutritional status, highlighting key findings and recommendations for improvement.

Key findings include: [Faint text describing specific nutritional metrics and their implications]

The primary concern is the low intake of essential nutrients, particularly [Faint text mentioning specific nutrients like vitamins and minerals]

This report is based on a 7-day food diary and a blood test. It provides a detailed analysis of your current nutritional intake and identifies areas for improvement.

The report is divided into several sections, including an overview of your nutritional status, a detailed analysis of your diet, and a list of recommendations for improvement.

It is important to note that this report is for informational purposes only and should not be used as a substitute for professional medical advice.

For more information, please contact your healthcare provider or a registered dietitian. We are committed to helping you achieve optimal health and well-being.

Thank you for choosing BioAge for your nutritional assessment. We look forward to supporting your journey towards a healthier lifestyle.

You will be able to read all the contents within your report

- Introduction
- Overview of your nutritional status
- Detailed analysis of your diet

Summary: This report provides a comprehensive overview of your nutritional status, highlighting key findings and recommendations for improvement.

Introduction

Dr. [Name] (Specialist MD)

[Faint text providing contact information or a disclaimer]

