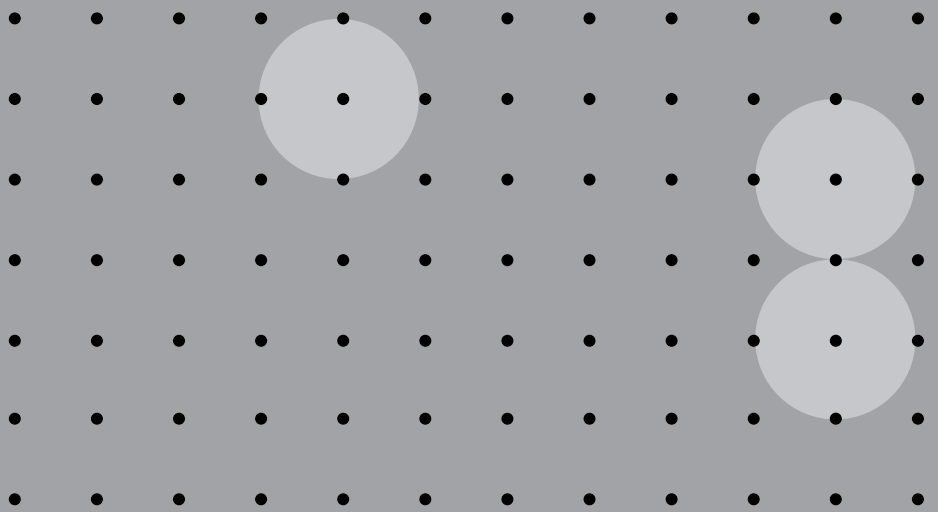




ELYSIUM



An Introduction to the
Science Behind Index

Breakthroughs in Aging Technology

We're excited that you're interested in **Index, Elysium Health's revolutionary new test.**

Here are the basics of how we calculate your biological age with Index, a brief timeline of the technology leading up to our platform, and a few key terms you'll want to understand.



What is Index?

Index is a revolutionary at-home test developed by Elysium Health that tracks how fast you've been aging.

How Can Index Fit Into My Life?

The discovery of your biological age is an important step in your journey. An understanding of your test results can help you prioritize lifestyle changes that **may increase the likelihood of a slower biological age**. There is no single factor and no guarantee that healthy living will improve your biological age or change your rate of aging. Nonetheless, there are a number of lifestyle factors that may improve your overall health and thereby increase your likelihood of slowing biological aging: diet, cultivating healthy relationships, managing stress, sleep, and exercise.

How Does Elysium Calculate My Biological Age?

Index uses Elysium Health's next-generation technology Algorithmic Platform for Epigenetic Examination (APEX).

What Do I Get With My Index Report?

When you get your Index results, you'll learn your biological age, your cumulative rate of aging, and how you compare to others in your age group. You'll also receive The Index Lifestyle Guide, which shows you how to take control of your future through science-backed recommendations on diet, sleep, exercise, and more.

Ready to Purchase Index?

[Visit us online.](#)

We look forward to helping you take control of your future.

Want to Learn Even More About Biological age?

Check out [our story](#) on the topic.

Timeline and Science Terms to Know

I've Never Heard of Biological Age. Where Does It Come From?

Here's a primer on the science that led up to Index.

2001: Scientists at the Human Genome Project sequence the human genome — all of the DNA inside our chromosomes — and share the information publicly to researchers worldwide.

2009: Researchers at the Salk Institute create the first map of the human epigenome, shedding light on how the genome actually functions in different cells.

2013: Steve Horvath, Ph.D., professor of Human Genetics and Biostatistics at UCLA, uses a huge volume of publicly-available data to create an “epigenetic clock” that can predict a person’s chronological age using DNA methylation.

2018: Yale scientist and Elysium’s Bioinformatics Advisor, Morgan Levine develops DNAm PhenoAge, a new biomarker for predicting biological age.

2019: Elysium partners with Levine to launch Index — based on the next-generation platform APEX — and bring the science of epigenetics directly to you.

Morgan Levine, Ph.D
Elysium Bioinformatics Advisor



Some Science Terms to Know

What is Biological Age?

What it is: There’s more to your story than how many birthdays you’ve celebrated. After birth, humans born in the same year diverge in the way they age based on their individual genomes (inherited from Mom and Dad) and on countless lifestyle factors — everything from diet and exercise to stress and geographical location, and to some extent, chance.

Why it matters: Scientists estimate that a **majority of your biological age is a result of lifestyle and environmental factors**. When we account for you and all your rich experiences in life, the challenges and successes, which are stored in your DNA methylation-based biomarkers — your epigenetic clock — we get your biological age.

“People have much more power over this number. This is much more reflective of lifestyle and behavior.”

Morgan Levine, Ph.D.
Elysium Bioinformatics Advisor



Some Science Terms to Know

What is Epigenetics?

Epigenetics involves changes in organisms caused by modification of gene expression rather than alteration of the underlying genetic code itself. These expressions tend to meet three criteria: They are heritable, or passed down from one cell to its descendants; they are self-perpetuating; and they are reversible. Factors that can influence your epigenetics include nutrition, stress, physical activity, smoking, and alcohol consumption.

What is DNA Methylation?

DNA methylation is an epigenetic modification to your genome. In general, epigenetic modifications are not part of your DNA itself, but can influence how your genes are expressed.

What are Biomarkers?

A biomarker, or biological marker, is any measurable indicator, usually found in blood, saliva, tissues, and elsewhere in the body. You're probably more familiar with some biomarkers like glucose, creatinine, and albumin.. DNA methylation is one type of biomarker, which Elysium measures at over 100,000 sites of DNA methylation in your genome to determine your biological age.

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We look forward to helping you take control of your future.

