





Your Expected Chronological age is **4.73** years lower than your chronological age.



HOW OLD ARE YOU? Why is your "Epigenetic age" important?

- People age at different rates. Some "look" and "feel" older than their chronological age, while other look younger than their chronological age.
- Epigenetic age is a better parameter of our wellbeing than chronological age.
- DNA is the hardware, genetics is the operating system and DNA methylation and other epigenetic factors are the software that programs the genome.
- A paradigm shift in search for epigenetic age markers begin with the discovery of the "epigenetic clock" by Horvath, which is based on the measurement of DNA methylation status at hundreds of strategic positions in DNA. This "epigenetic clock" measures our epigenetic age.
- In most people, the "epigenetic age" measured by the epigenetic clock and the "chronological age" measured by the calendar are very similar. The correlation between the two measures across the population is close to 0.8 when 1 is a perfect correlation.
- However in some people the "epigenetic age" is different from the "chronological age". Sometimes the "epigenetic clock" moves faster than the "chronological clock". We consider a difference that is larger than the 95% confidence interval of the population mean (or the normal distribution in the population) as a significant difference.
- Studies suggest that accelerated "epigenetic clock" might be associated with increased risks for several age-related chronic diseases such as cardiovascular disease and cancer. (https://www.ncbi.nlm.nih.gov/pubmed/?term=epigenetic+clock+disease). This is however still an open field and more studies are needed, and there is no clear immediate correlation between older "epigenetic" age and chronic diseases.

What is the EpiAge Test? What does it mean?



- After extensive data mining, we have discovered a single agerelated CG methylation region that was sufficient to accurately predict epigenetic age using saliva.
- We prepare DNA from your saliva and measure the level of DNA methylation in several positions in a fragment of your genome using bisulfite conversion followed by next generation sequencing. A specific computer script calculates the level of DNA methylation. Your DNA methylation results are inserted into a mathematical equation that calculates the "epigenetic age" as a function of the level of DNA methylation.
- We consider it as a "red flag" when your "epigenetic age" deviates from the 95% confidence interval of the population mean. You will be able to calculate the expected "epigenetic age" of your age cohort using our web calculator. We don't know your chronological age. However, based on an equation that calculate the relationship between "epiage" and chronological age in a large number of DNA methylation results in the public data, we will provide you with the expected chronological age for people with your epigenetic age.
- Although it is still not clear how one can decelerate his "epigenetic clock", lifestyle changes recommended by most national medical associations are perhaps a starting point. An older age is a "red flag" suggest that perhaps it is time to make some lifestyle changes.
- A red "flag" might prompt you to act on your lifestyle or consult your physician for a check up.

What can I do if my "epigenetic Age" is older?



- "Epigenetics" is different from "genetics" in a substantial way. Epigenetics is potentially reversible by dietary interventions and by life style changes. So, it might be possible to reverse the "epigenetic clock".
- Preliminary studies show that dietary changes can cause deceleration of the epigenetic clock in certain people, however this is still an open question. (https://www.ncbi.nlm.nih.gov/pubmed/30350398)
- Lifestyle changes including exercise and dietary habits have been recommended by national medical associations. So is reduction of stress in your life. These changes should be personalized and more data are needed to determine what these advisable changes should be.
- One way for us to learn about advisable lifestyle changes is sharing our experiences with others and analyzing the impact of the differences in lifestyle in a large population. This is now possible using technologies such as apps as well as artificial intelligence that could determine how different inputs like "lifestyle" habits affect the "epigenetic clock".





- Our apps links you to information on lifestyle behaviors recommended by respected US national medical associations and on nutritional supplements such as SAMe, vitamin A, D and C.
- These links are updated regularly and we suggest that you visit the links periodically. These recommendations are based on what "science" knows today. They are not perfect but with more data and more analysis, science is improving.
- This report is based on the lifestyle data that you have entered which shows how your lifestyle parameters compare to the consensus recommendations. You might decide to make changes based on this report.



A dynamic long-term partnership to achieve 'Healthy Aging'

- We suggest that you continue to monitor your epiage by entering your lifestyle data.
- You can update your lifestyle data as regularly as you wish. You can update all questions, some or none. We believe accurate reporting will allow us to provide you with a better analysis.
- We suggest that you should repeat the test in 6 months.
- Your data will be anonymized. Your data along with data from other anonymous users will be analyzed by artificial intelligence to develop a "model", which measures the impact of lifestyle changes on the "epigenetic clock".
- When more data is accumulated, the "model" will examine your lifestyle data and the test results will be shared with you.
- We will analyze your "epigenetic age". We will let you know your progress based on the lifestyle changes that you have made.
- Possible routes for change will be offered based on our "model" and your data.
- We hope that together we will be able to coevolve your wellbeing and our "epiAge" learning environment.

