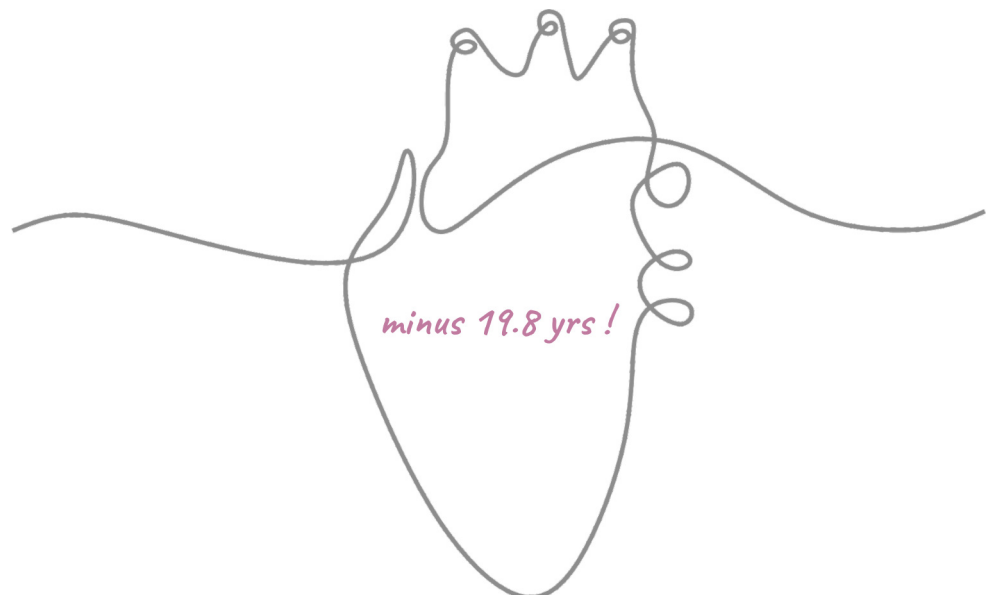
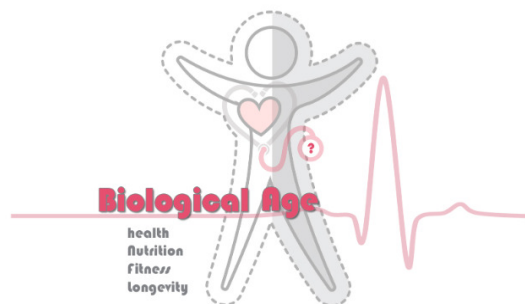


Your Biological Age Report



Your Biological Age Report

Predicted Lifespan

Predicted survival

96.5



Predicted Healthspan

Disability-free survival

89.6



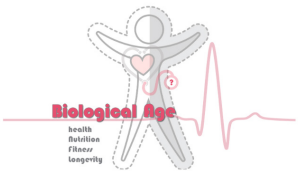
Biological Age Difference

Years gained from your lifestyle

minus

19.8

in top 1.12%



Lifespan & Biological Age

Your predicted lifespan is

Taking all known factors into account

96.5

years

28/07/2060

Your biological age (now vs birth is)

Age correction on top of your numerical age

36.6

minus 19.8

You may have this many years remaining

Assuming you maintain or improve your current lifestyle

40.1

If life was a 24hr clock the time now would be

Assuming you maintain or improve your current lifestyle

12h 36m 03secs



Retirement

Your retirement age is/was

Based on the information supplied

38.0

years

05/08/2009

You Retired this many days ago

Days since retirement

-3675

days

We anticipate your retirement will last

Projected lifespan minus retirement age

58.5

see financial tab

Disability free, leisure days remaining

Non-working days before and after retirement

14057

days

Health Span

We anticipate you will be independent until

Assuming you have no "unlucky" accidents or conditions

89.6

years

28/02/2056

Disability free, leisure days remaining

Non-working days before and after retirement

14057

days

Nit Picking, taking away sleep time

Assuming nothing significant changes

9957

days

Reversible lost years of life

if you adopted an ideal lifestyle from now

1.2

lost years

Reversible lost disability

if you adopted an ideal lifestyle from now

0.2

disabled years

Chance of a significant illness next year

One of 6 major chronic illnesses (see below)

7.9 %

1yr incidence



Modifiable Risk

effect in years

Top Modifiable Risk Factors

Ranked risk factors which you can change

#1	Diet Score	0.9
#2	Local pollution	0.3
#3	BMI	0.1

Background Risk

effect in years

Highest Fixed Risk Factors

Ranked risk factors which are in the past

#1	Year of Birth (Cohort Effect)	1.9
#2	United States	0.7
#3	Family inherited risk (genetics)	0.9

Dietary Risk

effect in years

Top Modifiable Diet Risks

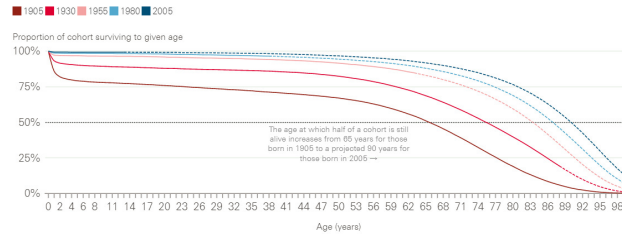
Ranked diet and nutrition risk to address

#1	Regular Red meat (beef / lamb)	0.3
#2	Regular Dairy milk or eggs or ch	0.2
#3	Regular Chicken (or any poultry)	0.2

Narrative Review of the Most Important Influences

- #1 You were born in Aug 1966 which means an intermediate effect of likely lifespan due to the birth cohort effect. Your life expectancy at birth would have been 76.7 but you will likely far exceed that

[LINK](#)

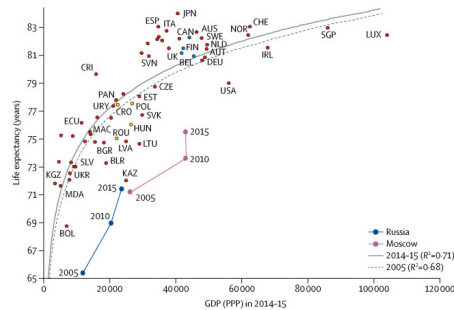


Explanation

Of people born in 1905, 66% of females and 59% of males would survive to 60 years of age but by 1955, 91% of females and 87% males survive to age 60. Of those born in 2005, a projected 96% of females and 94% of males will survive to age 60. However since 2010, mortality improvements have significantly slowed

- #2 You are living in United States which means a moderate-to-high effect on likely lifespan due to advantages in a high income setting

[LINK](#)
[LINK2](#)

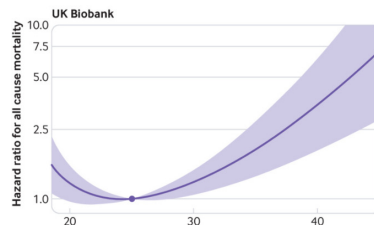


Explanation

Mortality correlates with income across countries as shown in this Preston curve. Preston estimated that this accounted for 75–90% of the increase in life expectancy over time. This effect is amplified if you are in a high-income group with financial stability within your country; also important is a low pollution level in your main area and yours is 27 in PM2.5

- #3 Your weight and height shows a healthy BMI of 22.9 which implies a good body composition for long-term health

[LINK](#)
[LINK2](#)

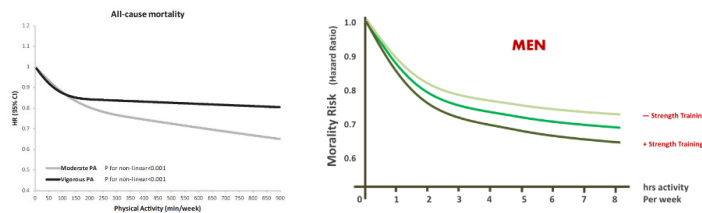


Explanation

Several meta-analyses have shown a J shaped relation between BMI and all cause mortality, with the lowest point of the curve in the normal weight (BMI 18.5-24.9)...20-22 with longer durations of follow-up. However there is a complication in that high fat mass was associated with increased risk of mortality and low lean body mass was associated with increased risk of mortality; therefore it is important to maintain a good body composition not just weight

- #4 Your exercise habits are strong with around 130 mins per day and significant proportion in a good intensity High (eg running)

[LINK](#)

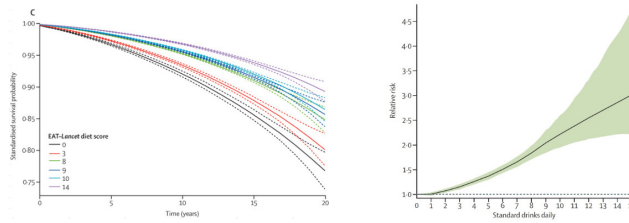


Explanation

Whilst early studies hinted at a J shaped relation between exercise and all cause mortality, new studies suggest no dangerous upper limit. Further both high and low intensity exercise seem to help AND there is additional benefit to be gained from weight-training (especially in older adults). I discuss these further in this blog: <https://www.cyclingapps.net/blog/dont-do-more-than-3hrs-per-week-in-the-gym/> and this one: <https://www.cyclingapps.net/blog/dying-to-be-fit-can-too-much-exercise-kill-you/>

#5 Your dietary habits are good. We rated your diet with a score of 72 /100 for nutrition100 /100 for alcohol

[LINK](#)
[LINK2](#)

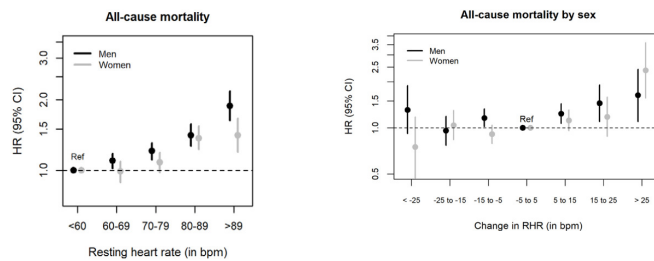


Explanation

Beyond calories, a large number of nutritional factors are risky for numerous diseases including heart disease, stroke, diabetes and cancer. Simplifying, the largest risk factors are ultra-processed foods, high meat consumption (esp red meat), palm and vegetable oils, high salt and high sugar foods. For example, each 10% increase in ultra-processed food consumption gives a 15% higher risk of all-cause mortality (<https://www.mdpi.com/2072-6643/14/1/174>). The dose-response analysis revealed a positive linear association between UPF consumption and all-cause mortality. Avoid low quality ingredients like inflammatory fats, added sugar, and refined grains, they're usually low in fiber, protein, and micronutrients. Careful re high-protein diets which risk unwanted weight gain as fat (advice is 56g/day men | 46g/day women). Avoid all oils except coconut oil, fish oils and olive oil; people using mostly extra virgin olive oil lived an average of 9.5 years longer after the age of 65 and fatty fish such as salmon boosts intake of EPA and DHA omega-3 fatty acids and protein. Consider a Mediterranean diet, with its reliance on fruits, vegetables, olive oil, fish and nuts, is one of the healthiest diets for both overall health and longevity. Harvard researchers, reporting in the BMJ in 2014, found that those who followed the diet most closely had longer telomeres, which cap the end of each strand of DNA and protect chromosomes from damage. Overall, the best strategy for a long-life diet is to eat "cleanly," with as many natural, whole foods as possible which are found in nature, with minimal packaging, minimal processing.

#6 Your cardiovascular health is excellent. For example your resting HR is 47. Also you have no significant medical illness (see below).

[LINK](#)



Explanation

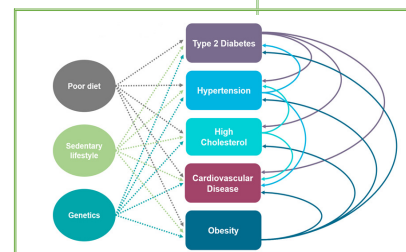
Elevated RHR measured at a single point in time has been consistently shown to be associated with increased all-cause and cardiovascular disease (CVD) mortality but it is also important to maintain this. In the new study from Sevilir, the risk was higher by 24% in participants whose RHR deteriorated to over 70 bpm especially those whose RHR increased by more than 15 bpm. Similarly medical illness (comorbidity) is a very strong risk factor for disability and mortality. The top medical causes of disability are shown in this figure from Lancet global health study (updated 2019)

	1	2	3	4	5	6	7	8	9	10
Global	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
High income	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
High income North America	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
Canada	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
Greenland	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
USA	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
Australasia	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
Australia	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
New Zealand	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
High income Asia Pacific	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
Brunei	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
Japan	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
Singapore	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90
South Korea	4.87 (0.84) 50.20	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90	5.87 (0.42) 59.90

#7 Personalized Medical Risk of Significant Disease

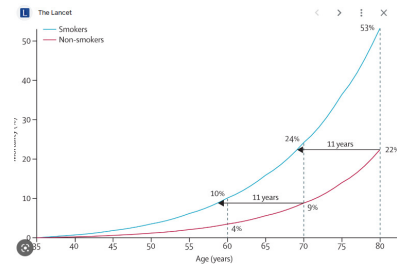
[LINK](#)
[LINK2](#)

Heart Disease		Your risk for the next year:	0.7 %
Diabetes		Your risk for the next year:	0.9 %
Stroke		Your risk for the next year:	0.5 %
Lung Disease		Your risk for the next year:	0.5 %
Dementia		Your risk for the next year:	0.2 %
Cancer		Your risk for the next year:	5.1 %
		Total risk of significant disease	7.9 %



#8 Other Factors, such as smoking, you avoided

[LINK](#)



Explanation

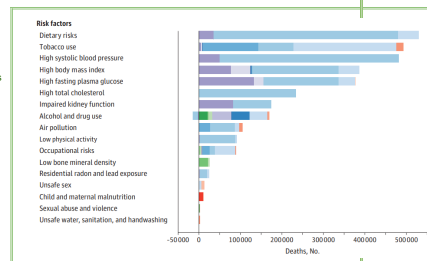
You have avoided a number of big risk factors such as alcohol, lack of monitoring, but the main one you avoided is smoking risk. In high income countries smokers lose at least 10 years of lifespan. Stopping before age 40 avoids more than 90% of the excess mortality caused by continuing smoking; stopping before age 30 years avoids more than 97% of it but there is a small residual risk.

The top 18 background risk factors for mortality in high income countries are shown below (#8)

#9 Appendix: List of Factors Examined in Your Report

[LINK](#)

- Date of Birth & cohort effect
- Country of residence & local pollution
- Gender & marital status
- Weight / height / BMI
- Subjective health & blood pressure
- Working hours / work stress
- Retirement age
- Resting Heart Rate
- Sleep (hours and quality)
- Health visits
- Exercise (hours and type)
- Mental healthy history | current stress
- Diet and nutrition and alcohol habits
- Fruit and vegetables consumption
- Soft drink consumption
- Smoking (current and past)
- Family history
- Social connections



Ranked Risk Factors, USA 2016

#10 Background Reading on Lifespan

[LINK](#)

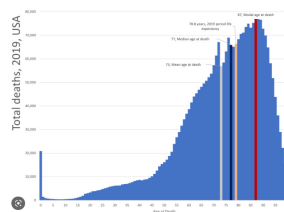
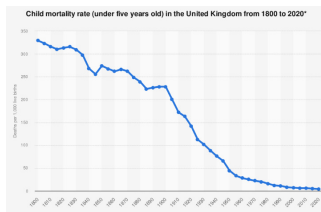
The last century has seen a rapid increase in life expectancy: in the USA life expectancy has nearly doubled from 1900 to 2010 (47.3 to 78.7y). And this is not just limited to the US – worldwide there was a 6 year increase in life expectancy between the years 2000 and 2019 (66.8 to 73.4y). Imagine you were born in Japan in 2005, life expectancy would be around 82 years. This means an average infant living could expect to live 82 years, assuming conditions remained constant throughout their lifetime. However the older they got, the more than beat early hazards, and the better society tends to become...so predicted lifespan of the same infant aged 80 years would likely be 11 years not 2 years. Life expectancy is the average. In societies with high infant mortality rates many people die in the first few years of life; but once they survive childhood, people will far exceed life expectancy at birth. An example: only half of the people born in 1850 in England made it past their 50th birthday but 1 in 4 died by the age of 5. Now 95% of the people born in England today can expect to live longer than 50 years and only 0.5% die before 5 yrs.

Next consider we can anticipate age of death in a few ways.

#A The most common age of death (aka mode). This is age is the largest number of deaths in a population born in a certain year. Obviously, as people get older, the mortality rate gets higher. But, as people die off, there are fewer and fewer people at that age to be hit with that high mortality rate. After the mode, the number of deaths falls off precipitously.

#B The mid-point age of death (aka median). This is where 50% of the deaths are higher and lower than this age. However, it really isn't very meaningful

#C The average age of death (aka mean). This is the numerically weighted average age of death over all people who died in that year. This measure can get pushed or pulled around by early deaths or late deaths.



#11 Background Reading on Healthspan

[LINK](#)

Whilst one might think living longer is better, a long life is not necessarily synonymous to living a healthy life. Lifespan refers to the total number of years alive, whereas healthspan is how many of those years are lived free from serious disease or disability. Healthspan is the number of disease-free years lived.

WHO began collecting Healthy Life Expectancy data, (AKA HALE) as the number of years lost due to disability (YLD). HALE is the cumulative number of health-adjusted years, divided by the total years lived by each age interval (WHO, 2014). Much of this related to chronic disease. Chronic diseases are responsible for 70% of deaths and 80% of all disability. Four conditions, cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases, account for 80% of chronic diseases. We have modelled your risk from these conditions above (#7)

