UGENOME

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Longevity & Healthy Aging

Summary Report

REPORT CATEGORY

LONGEVITY

Sample Client

Report date: 30 April 2026

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Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

5ft 10" 178cm

WEIGHT

215lb 97.5kg

DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

Viewing this medical test requires a medical doctor or use one of our contracted genetic counselors. By accessing these results, you acknowledge and agree that you will consult with a licensed physician or one of our contracted genetic counselors to review and interpret the results, and you agree not to rely on this information as a substitute for professional medical advice, diagnosis, or treatment.

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Summary

Longevity is a fascinating and complex area of study that encompasses not only the length of life but also the quality of life as we age. Genetic factors play a significant role in determining how long we live and how well we age.

This report explores various aspects of longevity, including lifespan, healthy aging, and common longevity-related problems like artery hardening and cognitive decline. It also analyzes specific genetic markers (like telomere length and klotho) and genes (like TERT and SIRT1) that influence your potential lifespan and quality of life.

By understanding your genetic predispositions, you can adopt proactive health measures, enhance your quality of life, and potentially increase your lifespan. Collaborating with healthcare professionals based on this knowledge can empower you to optimize your aging journey, aiming for not just longevity but also vitality and wellness.

This summary report contains:

- **33** Genetic Results
- **15** Recommendations
- **3** Lifestyle Assessments

Overview of Your Results

Longevity & Healthy Aging

TYPICAL LIKELIHOOD

Aging Eyes

Typical likelihood of presbyopia

TYPICAL

Facial Wrinkles

Predisposed to a typical amount of facial wrinkles

TYPICAL

Longevity

Predisposed to typical longevity

TYPICAL

Healthy Aging

Likely typical aging

TYPICAL

Hair Graying

Typical

Conditions Affecting Longevity

MORE LIKELY

Colorectal Cancer

More likely to get colorectal cancer

MORE LIKELY

Prostate Cancer

More likely to get prostate cancer

MORE LIKELY

Frailty

More likely to experience frailty

TYPICAL LIKELIHOOD

Lung Cancer

Typical likelihood of lung cancer

TYPICAL LIKELIHOOD

Cardiovascular Disease

Typical likelihood of cardiovascular disease

TYPICAL LIKELIHOOD

Alzheimer's Disease

Typical likelihood of Alzheimer's disease

TYPICAL LIKELIHOOD

Age-Related Macular Degeneration

Typical likelihood of AMD

TYPICAL LIKELIHOOD

Artery Hardening

Typical likelihood of atherosclerosis

LESS LIKELY

Cognitive Decline

Less likely to have cognitive decline

LESS LIKELY

Pancreatic Cancer

Less likely to have pancreatic cancer

LESS LIKELY

Muscle Loss

Less likely to have sarcopenia

Longevity Markers

SHORTER

Telomere Length

Predisposed to shorter telomeres

HIGHER LEVELS

Haptoglobin

Predisposed to higher haptoglobin levels

HIGHER LEVELS

Klotho

Predisposed to higher klotho levels

YOUNGER

Biological Age

Predisposed to lower biological age

Longevity Genes

WORSE

PPARD (Longevity)

Likely worse PPARD genetics

LOWER ACTIVITY

ADA (Cognition/Longevity)

Likely lower ADA activity

WORSE GENETICS

PARP1 (Longevity, Cognition)

Likely worse PARP1 genetics

TYPICAL ACTIVITY

SIRT1 (Longevity)

Likely typical SIRT1 activity

TYPICAL ACTIVITY

TERT (Longevity)

Likely typical TERT activity

TYPICAL ACTIVITY

OBFC1 (Longevity)

Likely typical OBFC1 activity

TYPICAL GENETICS

AKT1 (Longevity)

Likely typical AKT1 genetics

TYPICAL ACTIVITY

APOC3 (Blood Lipids/ Longevity)

Likely typical APOC3 activity

TYPICAL ACTIVITY

FOXO3 (Longevity)

Likely typical FOXO3 activity

TYPICAL ACTIVITY

TAS2R16 (Bitter Taste/ Longevity)

Likely typical TAS2R16 activity

LOWER ACTIVITY

CETP (Cholesterol/ Longevity)

Likely lower CETP activity

BETTER

IGF1R (Longevity)

Likely better IGF1R genetics

HIGHER ACTIVITY

CFH (Eye Health/ Longevity)

Predisposed to higher CFH activity

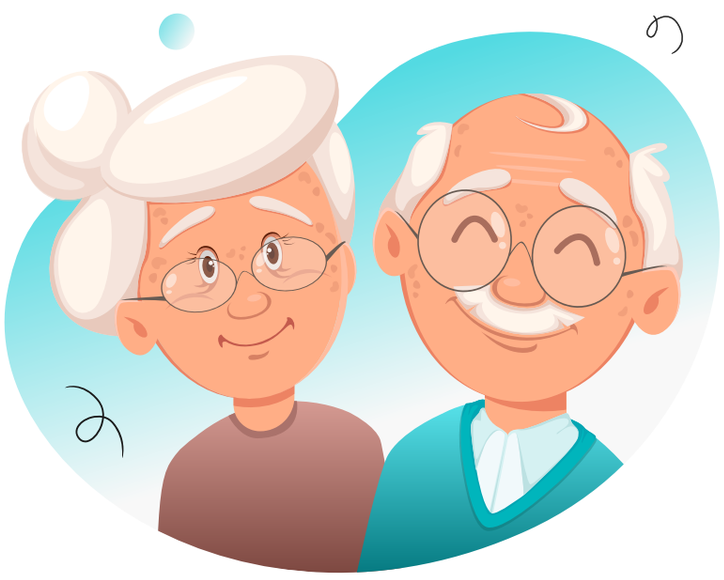
Recommendations Overview

Your recommendations are prioritized according to the likelihood of it having an impact for you based on your genetics, along with the amount of scientific evidence supporting the recommendation.

You'll likely find common healthy recommendations at the top of the list because they are often the most impactful and most researched.

		DOSAGE
1	Aerobic Exercise (Cardio)	1 hour
2	Mediterranean Diet	
3	Maintain Optimal Vitamin D Levels	1000 iu
4	Green Tea	400 mg
5	Avoid Organochlorine Pesticide Exposure	
6	Curcumin	500 mg
7	Methylfolate	400 mcg
8	Strength Training	1 hour
9	Cruciferous Vegetables	
10	Garlic Supplement	200 mg
11	Avoid Air Pollution	
12	Fruits And Vegetables	
13	Avoid Asbestos	
14	Eat Fiber-Rich Foods	
15	Alpha-Linolenic Acid (ALA)	

Your Results in Details



Longevity & Healthy Aging

The concepts of longevity and healthy aging go hand in hand, emphasizing not just the number of years lived but also the quality of those years. This section delves into the genetic factors that contribute to a longer, healthier, and happier life.

Understanding the genetic influences on longevity can help identify strategies to promote wellness and longevity, enabling you to thrive in your later years.

TYPICAL LIKELIHOOD

Aging Eyes

Typical likelihood of presbyopia

TYPICAL

Facial Wrinkles

Predisposed to a typical amount of facial wrinkles

TYPICAL

Longevity

Predisposed to typical longevity

TYPICAL

Healthy Aging

Likely typical aging

TYPICAL

Hair Graying

Typical

Aging Eyes

Unlike other refractive errors such as myopia (nearsightedness) or hyperopia (farsightedness), presbyopia is due to a natural change in the eye's internal structure rather than the shape of the eyeball or cornea. Symptoms of presbyopia include eyestrain, headaches while doing close work, and the need to hold reading materials at arm's length to focus properly.

Although presbyopia cannot be prevented, its effects are manageable, and there are several corrective options available ranging from eyeglasses with progressive lenses to surgical procedures that improve near vision.

TYPICAL LIKELIHOOD

Typical likelihood of presbyopia based on 827,263 genetic variants we looked at

47th

PERCENTILE

Your risk is **greater than 47% of the population** and **lower than 53% of the population.**

Facial Wrinkles

Wrinkles are small but visible folds in the skin. Wrinkles appear with age and develop over several decades. They are more evident in areas of the body that are usually exposed, such as the face, neck, forearms, and hands. **The most noticeable wrinkles are facial** [R, R, R].

Up to **55%** of differences in people's facial wrinkling may be due to genetics. Involved genes may influence **skin color and health** [R, R, R].

UV radiation also contributes to facial wrinkling. Excessive sunbathing or use of tanning beds exposes the skin to unhealthy levels of UV radiation and leads to premature aging. Hence, experts recommend wearing sunscreen [R, R, R].

Make sure to find the right balance. Sunlight or bright light during the day can benefit your body (by increasing vitamin D levels) and mind (by boosting mood) [R, R].

The color of your skin also influences facial wrinkling. Wrinkles appear more rapidly in people sensitive to UV radiation. Hence, white skin may wrinkle earlier than other skin types [R, R].

Others factors that may also contribute to facial wrinkling include [R, R, R]:

- Aging
- Smoking
- Very low weight
- Health conditions (e.g., depression)

TYPICAL

Predisposed to a typical amount of facial wrinkles based on 20 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SIK2	rs11213999	CC
TPGS2	rs78569750	GG
LRRC3B	rs116248825	CC
NUDT12	rs113322056	AA
HACD4	rs116873518	GG
SYNDIG1	rs184605088	CC
NUDT12	rs112608607	TT
LINGO2	rs117828793	CC
BBX	rs1283106	AC
BMP6	rs1225927	GT
/	rs11711327	AG
BMP6	rs382029	AT
MON1B	rs62047859	TT
DCSTAMP	rs147672305	TT
GLIS1	rs702491	CC
RESF1	rs1150997	AA
CA3	rs184880542	GG
/	rs72811030	GG

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Longevity

Researchers have spent a lot of time trying to figure out why some people live exceptionally long lives. One of the answers is genetics.

Our **genes are responsible for anywhere around 25-50% differences in our lifespans**. These genes influence a variety of processes within our bodies including [R, R, R, R, R]:

- Heart and blood vessel function
- Brain function
- Glucose and fat metabolism
- Oxidative stress

For example, the *APOE* gene has a well-known link to longevity. It affects cholesterol transport and plays an important role in brain and heart health. The e4 variant of this gene has been linked to a greater risk of heart disease and dementia and an overall shorter lifespan. However, diet and exercise can mitigate the effect of this allele in carriers [R, R].

There are many things we can do to improve our odds of living longer and healthier lives:

- **Eat a healthy diet:** Most experts agree that a plant-based diet rich in vegetables, fruits, and healthy fats (such as omega-3s) is the way to go. Eating healthy may add up to a decade to your life [R, R, R, R].
- **Be physically active:** Exercising, often referred to as the "longevity drug", can keep your weight under control, improves your physical and mental health, and can add years to your life [R, R, R, R].
- **Get enough sleep:** Sleep is when our bodies recover and regenerate [R, R, R, R].
- **Stay hydrated:** Drink plenty of water throughout the day. Research suggests that staying hydrated may slow down the aging process [R].
- **Minimize smoking and alcohol consumption:** Both smoking and alcohol increase the risk of certain diseases. If you are a smoker, quitting can add years to our life [R, R, R].
- **Build strong relationships:** Social connections with friends and family can improve your overall health and longevity [R, R, R, R].
- **Manage stress:** Stress has a negative impact on health, accelerates aging and shortens lifespan [R, R, R].
- **Find Purpose:** Engage in hobbies and activities that bring you a sense of purpose and joy [R, R, R].
- **Look on the bright side:** A positive attitude is linked to a longer and healthier life [R, R].

TYPICAL

Predisposed to typical longevity based on 7,283,077 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SIRT1	rs7895833	AA
STN1	rs10786775	CC
ZGPAT	rs755017	AA
TERT	rs2736100	CA
SIRT1	rs12778366	TC
SIRT1	rs7896005	GA
GSTO1	rs9420907	AA
TERT	rs7705526	AC
TERT	rs4449583	TC
PCSK7	rs5128	CC
TERT	rs2853677	GA
SIRT1	rs3758391	CT
FOXO3	rs4946936	CC
FOXO3	rs9398171	TT
FOXO3	rs12212067	TT
FOXO3	rs12202234	CC
FOXO3	rs17069665	AA
FOXO3	rs3800230	TT
ARMC2	rs6911407	AA
IGF1R	rs34516635	GG
FOXO3	rs2764264	TT
CETP	rs5882	GA
PON1	rs662	TT
CETP	rs708272	AA
STN1	rs11191865	AG
SIDT2	rs2854116	CT
TAS2R16	rs860170	TT
SOD2	rs4880	GG
TP53	rs1042522	CC

GENE	SNP	GENOTYPE
SOD3	rs2536512	AA
FOXO3	rs9400239	CC
FOXO3	rs479744	GG
SIDT2	rs2542052	AC
GHR	rs6873545	CT
SDHAF3	rs799605	GG
TAS2R16	rs978739	TC
TAS2R16	rs6466849	CT
IL1B	rs16944	GA
SLC12A1	rs9920281	GA
IL1A	rs1143623	CG
PARP1	rs1805415	TC
PARP1	rs3219090	TT
SOD3	rs1799895	CC
SOD3	rs13306703	CC
NICN1	rs3448	CT
/	rs9528753	AA
SPATA2L	rs445537	GG
IL1A	rs1143627	AG
/	rs923994	GA
TSPYL6	rs11125529	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Healthy Aging

The following lifestyle choices may help preserve physical health:

- Regular physical activity: Exercise is crucial in maintaining muscle strength, flexibility, and cardiovascular health. Activities like walking, swimming, or yoga can help maintain mobility and prevent chronic diseases such as heart disease, diabetes, and arthritis.
- Balanced diet: Eating a diet rich in fruits, vegetables, lean proteins, and whole grains while limiting processed foods and sugars helps manage weight, provides necessary nutrients, and reduces the risk of developing chronic diseases.
- Preventive healthcare: Regular check-ups and screenings (like mammograms, colonoscopies, and skin checks) can detect health problems early when they are more treatable. Vaccinations, such as the flu and shingles vaccine, are also important.
- Avoiding cigarette smoke: Smoking contributes to the development of diseases that can shorten life, such as lung cancer and heart disease.
- Limiting alcohol consumption: Excessive drinking can lead to health problems like liver disease and increase the risk of falls and accidents.
- Adequate sleep: Good sleep is essential for physical and mental health. It helps repair the body and mind and improves mood and cognitive function.

Moreover, the following strategies are crucial to maintaining mental health and well-being:

- Cognitive activity: Engaging in activities that stimulate the brain, such as reading, solving puzzles, or learning a new skill, can help delay or prevent cognitive decline.
- Social connections: Maintaining an active social life can ward off loneliness and depression, which are associated with poorer health outcomes. This includes staying connected with family and friends and participating in community activities.
- Mental healthcare: Seeking professional help for mental health issues like depression or anxiety is as important as addressing physical ailments.
- Community engagement: Volunteering or participating in community groups can provide a sense of purpose and fulfillment.
- Hobbies and interests: Pursuing hobbies and interests adds joy and reduces stress. It's important to engage in activities that bring happiness and relaxation.
- Financial stability: Managing finances carefully to ensure that resources are available for necessary adaptations or care in later life.
- Adaptability: Being open to change and adapting the living environment to maintain independence can help manage the aging process effectively.
- Positive outlook: A positive attitude towards aging has been linked with a longer lifespan and a reduced risk of chronic disease.

Implementing these strategies not only contributes to longevity but also ensures that the years added to life are complemented by vitality and a sense of well-being. Healthy aging is a holistic process that encompasses lifestyle choices, social connections, and active management of health conditions.

TYPICAL

Likely typical aging based on 52 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
APOE	rs7412	CC
SMARCA4	rs142158911	GG
DNAJC22	rs55686423	AA
CDKN2A	rs7859727	TT
NECTIN2	rs2972566	CC
AFF3	rs78438918	AA
NECTIN2	rs449647	AA
NEGR1	rs2613508	TT
LPA	rs9355297	CC
ZBTB46	rs6062322	AA
ADD1	rs16843603	TT
ASXL1	rs159428	CC
TTC12	rs2186800	GG
UBA7	rs2271961	CC
KLF3	rs17499404	GG
USP28	rs61905747	CA
TCF7L2	rs35198068	CT
PSMA4	rs8042849	CT
NECTIN2	rs6859	AG
SH2B3	rs4766578	TA
SH3YL1	rs66906321	TC
TAPBP	rs9277988	CT
CIB4	rs1275922	AG
TYR	rs1126809	AG
/	rs980183	AG
SNF8	rs940088	TC
ALDH2	rs11066320	AG
/	rs28637671	TG
NEK10	rs2643826	TC

GENE	SNP	GENOTYPE
MDFIC	rs12705966	AG
MAML3	rs36072649	TA
NLGN1	rs472103	AC
/	rs13141210	TC
ABHD17C	rs7174250	CT
SLC22A1	rs9295128	GG
LPL	rs268	AA
LPA	rs55730499	CC
NECTIN2	rs157581	TT
DHX58	rs34891485	TT
IRF4	rs12203592	CC
PLG	rs79570361	AA
ILRUN	rs6907508	AA
PTPN22	rs1230666	GG
RGS12	rs114298671	GG
HTT	rs16843836	AA
PABPC4	rs3768321	GG
GALNT4	rs1689406	AA
APOC1	rs405509	GG
ZNF318	rs7742789	CC
NEBL	rs12769128	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Hair Graying

Hair color is determined by the amount and type of pigment called **melanin** in your hair follicles. The same pigment determines skin, eye, and hair color. **Graying happens with the loss of this melanin**, which is a natural effect of aging.

Anywhere from **30% up to 90%** of differences in people's hair graying may be due to genetics [R].

Other risk factors for graying hair include [R]:

- Obesity
- Lack of exercise
- Drug use
- High cholesterol
- High uric acid

Conditions that may contribute to hair graying include [R]:

- High blood pressure
- Thyroid disorders
- Liver conditions

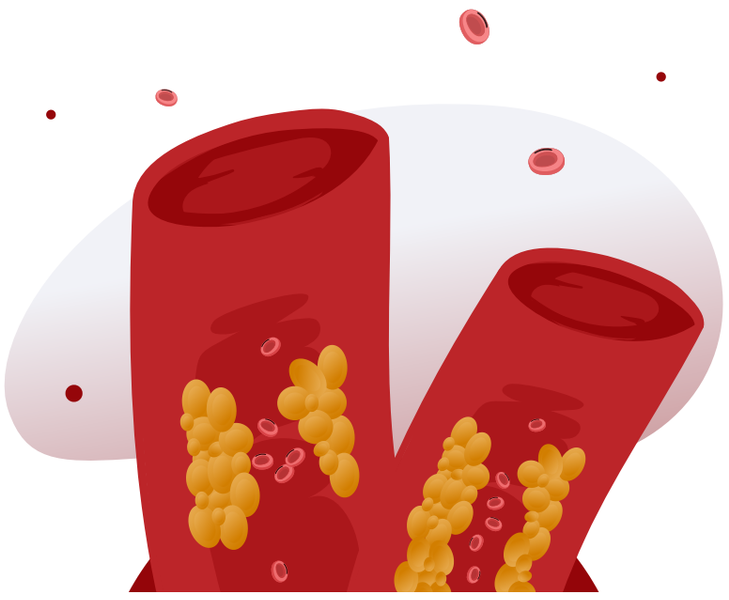
TYPICAL

Typical based on 5 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
KIF1A	rs59733750	AA
MROH2A	rs2361506	GT
NSMCE1	rs1127228	TC
PRDM8	rs7680591	AT
IRF4	rs12203592	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.



Conditions Affecting Longevity

Certain health challenges become more prevalent as we age, impacting our overall quality of life. This section examines the genetic predispositions to various conditions affecting longevity, including cardiovascular problems, muscle loss, frailty, and cognitive decline.

By understanding the genetic factors contributing to these issues, you can be more proactive in monitoring your health and seeking early interventions.

MORE LIKELY

Colorectal Cancer

More likely to get colorectal cancer

MORE LIKELY

Prostate Cancer

More likely to get prostate cancer

MORE LIKELY

Frailty

More likely to experience frailty

TYPICAL LIKELIHOOD

Lung Cancer

Typical likelihood of lung cancer

TYPICAL LIKELIHOOD

Cardiovascular Disease

Typical likelihood of cardiovascular disease

TYPICAL LIKELIHOOD

Alzheimer's Disease

Typical likelihood of Alzheimer's disease

TYPICAL LIKELIHOOD

Age-Related Macular Degeneration

Typical likelihood of AMD

TYPICAL LIKELIHOOD

Artery Hardening

Typical likelihood of atherosclerosis

LESS LIKELY

Cognitive Decline

Less likely to have cognitive decline

LESS LIKELY

Pancreatic Cancer

Less likely to have pancreatic cancer

LESS LIKELY

Muscle Loss

Less likely to have sarcopenia

Colorectal Cancer

While the exact cause of colorectal cancer is not fully understood, several factors increase the risk of developing this disease [R]:

- Age: The majority of cases occur in people aged 50 and older, though incidence rates are rising among younger populations.
- Family history: Having a family history of colorectal cancer or polyps increases one's risk.
- Personal history: Those with a history of inflammatory bowel disease (like Crohn's disease or ulcerative colitis), or who have had colorectal cancer or adenomatous polyps before are at higher risk.
- Genetic syndromes: Genetic mutations passed through generations, such as familial adenomatous polyposis (FAP) and hereditary non-polyposis colorectal cancer (Lynch syndrome), significantly increase the risk.
- Lifestyle factors: A diet high in red or processed meats, physical inactivity, obesity, smoking, and heavy alcohol use are known risk factors.
- Racial and ethnic background: African Americans have a higher incidence rate of colorectal cancer than other racial groups in the United States.

Treatment for colorectal cancer depends on the stage of the disease, the location of the tumor, and the patient's overall health [R]:

- Surgery: The primary treatment for localized cancer, surgery involves removing the tumor and surrounding tissue. For some cases, resection of part of the colon or rectum may be necessary.
- Chemotherapy: Used before or after surgery to shrink tumors and kill any cancer cells that may remain.
- Radiation therapy: Often used alongside chemotherapy, especially for rectal cancer, to reduce tumor size before surgery or eliminate remaining cells postoperatively.
- Targeted therapy: Drugs that target specific abnormalities in cancer cells. It's used for cancers that have specific gene mutations.
- Immunotherapy: Uses the body’s immune system to fight cancer. It’s typically reserved for advanced colorectal cancer.

Preventive measures include:

- Regular screening: Beginning at age 45 for average-risk adults, as recommended by the American Cancer Society.
- Diet and lifestyle: A diet rich in fruits, vegetables, and whole grains, limited red and processed meats, regular physical activity, maintaining a healthy weight, not smoking, and moderating alcohol intake can reduce risk.
- Genetic testing and counseling: Recommended for those with a family history indicative of genetic syndromes.

Colorectal cancer, when discovered early, is often treatable and frequently curable, highlighting the importance of regular screening and awareness of risk factors and symptoms.

Please note: This report is not diagnostic and can't be used to make any medical decisions. Most cancers are uncommon and have a strong environmental component. Even if your genetic predisposition is high, you will most likely not develop the disease. This report doesn’t test for hereditary cancer syndromes or ‘cancer genes’. These are usually caused by rare mutations that can’t be analyzed by our test. If you're concerned about your risk of hereditary cancer, consider getting a specialized test at a reference laboratory.

MORE LIKELY

More likely to get colorectal cancer based on 1,049,410 genetic variants we looked at

84th

PERCENTILE

Your risk is **greater than 84% of the population** and **lower than 16% of the population.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
ZPLD1	rs116265807	GG
MYH3	rs1078643	AA
ACTL8	rs11203467	GG
COX7A2L	rs13426988	GG
MAF	rs140851213	TT
MYL2	rs17550549	CC
PRICKLE1	rs11610543	GG
LRP1	rs7398375	CC
GRM7	rs2163735	GG
NUDT2	rs62558833	TT
CAMSAP1	rs74995296	CC
THSD4	rs4777372	CC
PTPN2	rs8083786	AA
PITX1	rs7722513	CG
CHRDL2	rs3824999	GG
/	rs10795668	AG
SMAD7	rs4939827	TC
PITX1	rs35917784	GA
UTP23	rs6469654	GC
RHPN2	rs10411210	CT
PREX1	rs6066825	GA

GENE	SNP	GENOTYPE
CDKN1A	rs1321311	AC
USP44	rs11108175	AG
ABCC4	rs12855244	AG
SLC6A3	rs2735940	AG
COLCA2	rs3802842	CA
POU5F1B	rs6983267	TT
PARP11	rs12818766	GG
MICB	rs3830041	CC
BMP2	rs6085662	GG
TCF7L2	rs11196172	GG
TRAPPC4	rs11217091	TT
PLCB1	rs8117408	AA
BMP2	rs4813802	TT
VANGL1	rs2226738	TT
MAF	rs9930005	AA
MAP2K5	rs7171219	AA
ETS2	rs2242936	TT
CCDC195	rs35413825	GG
UBQLN1	rs12235741	TT

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Prostate Cancer

The exact cause of prostate cancer is not clearly understood, but several factors have been identified that increase the risk of developing this disease [R]:

- Age: The risk increases significantly after age 50, and it is most common in men over 65.
- Family history: Having a father or brother with prostate cancer more than doubles a man's risk.
- Race/Ethnicity: African-American men have a higher risk of prostate cancer than men of other races. They are also more likely to develop prostate cancer at an earlier age and have more aggressive tumors.
- Genetics: Genetic changes, including mutations in the *BRCA1* and *BRCA2* genes, which are also linked to breast and ovarian cancer in women, can increase risk.
- Diet: A diet high in red meat or high-fat dairy products and low in fruits and vegetables might increase the risk, although studies are not conclusive.

Treatment options vary depending on the stage of the cancer and other factors, including the patient's overall health and personal preferences [R]:

- Active surveillance: For low-risk cancers, monitoring the cancer closely with PSA tests, rectal exams, and ultrasounds may be recommended until tests show the cancer is growing.
- Surgery: Radical prostatectomy involves removing the prostate gland and some of the surrounding tissue.
- Radiation therapy: This can be used both as an initial treatment for cancer that has not spread beyond the prostate and as a way to relieve symptoms of advanced cancer.
- Hormone therapy: Also known as androgen deprivation therapy (ADT), aims to reduce levels of male hormones, androgens, which can stimulate the growth of prostate cancer cells.
- Chemotherapy: Used for more advanced prostate cancer that has spread to other parts of the body and does not respond to hormone therapy.
- Targeted therapy and immunotherapy: Newer forms of treatment that target specific aspects of cancer cells or utilize the body's immune system to fight the cancer.

Please note: This report is not diagnostic and can't be used to make any medical decisions. Most cancers are uncommon and have a strong environmental component. Even if your genetic predisposition is high, you will most likely not develop the disease. This report doesn't test for hereditary cancer syndromes or 'cancer genes'. These are usually caused by rare mutations that can't be analyzed by our test. If you're concerned about your risk of hereditary cancer, consider getting a specialized test at a reference laboratory.

MORE LIKELY

More likely to get prostate cancer based on 1,049,413 genetic variants we looked at

95th

PERCENTILE

Your risk is **greater than 95% of the population** and **lower than 5% of the population.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
FSTL5	rs7691481	CC
POU5F1B	rs4582524	CC
CNTNAP4	rs74025012	CC
RGS6	rs75316101	AA
FCGR3A	rs147090771	TT
/	rs554511356	CC
/	rs760187366	GG
FGF9	rs781386326	GG
GINS4	rs56336841	CC
/	rs567149703	GG
TTC5	rs566891904	CC
/	rs563535708	CC
IBTK	rs111530166	GG
/	rs769602090	TT
/	rs576948661	AA
KCND2	rs73429913	CC
TNFSF11	rs532873142	CC
/	rs559455928	GG
/	rs142847236	GG
LBR	rs116033837	TT
/	rs544563896	GG

GENE	SNP	GENOTYPE
/	rs369133350	AA
/	rs528765618	GG
ATF7IP2	rs74007078	GG
/	rs767101980	TT
ATF7IP2	rs74009335	TT
HOXB13	rs138213197	CC
CDK5RAP3	rs568360281	CC
/	rs185055152	AA
PCP4L1	rs570264784	GG
/	rs750424210	CC
/	rs771304040	AA
CNTNAP2	rs1614837	TT
/	rs755238767	TT
WDR49	rs576596571	AA
PDCD10	rs180800414	TT
/	rs753950595	AA
PCARE	rs201947297	AA
ARHGAP21	rs187133192	CC
/	rs772533608	TT
FICD	rs148664833	CC
/	rs752830148	TT
FAM240B	rs182782495	CC
/	rs575059233	TT
GFRA2	rs147531216	CC
/	rs79056267	GG
HOXB8	rs559612720	TT
/	rs572623710	GG
BTG1	rs545740817	CC
COPZ2	rs554574584	GG

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Frailty

The clinical presentation of frailty includes symptoms such as fatigue, muscle weakness, slowed performance, and diminished energy reserves. Due to its multidimensional nature, the diagnosis of frailty involves a comprehensive assessment of physical capability, nutritional status, and social and psychological functions.

Management strategies for frailty are typically multidisciplinary and can include tailored exercise programs to improve physical function, nutritional interventions to address potential deficiencies or undernutrition, and supportive measures to enhance social support and cognitive stimulation. The goal of these interventions is not only to improve or maintain functional status but also to enhance overall quality of life.

MORE LIKELY

More likely to experience frailty based on 16,767 genetic variants we looked at

90th

PERCENTILE

Your risk is **greater than 90% of the population** and **lower than 10% of the population.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SYT14	rs12739243	TT
LRPPRC	rs4952693	CC
/	rs9275160	GA
RBM6	rs2071207	TT
TMOD2	rs17612102	CC
PIK3C3	rs8089807	TC
MDFIC	rs2396766	AG
NLGN1	rs583514	TC
CCDC6	rs4146140	TC
/	rs1363103	CT
NCAM1	rs10891490	CT
FAM160B2	rs56299474	CC
RGS12	rs82334	CC
CHP1	rs3959554	AA

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Lung Cancer

Exposure to cigarette smoke is by far the main risk factor for lung cancer. Other factors that may increase the risk include [R]:

- Exposure to asbestos and other substances
- Exposure to radon
- Previous radiation therapy to the chest
- Family history

Treatment for lung cancer usually begins with surgery to remove the tumor. If it's very large or has spread to other parts of the body, surgery may not be possible. Treatment might start with chemotherapy and radiation instead depending on factors such as overall health, cancer type and stage, and preferences of the patient. If the side effects of the treatment could outweigh its potential benefits, patients may be offered palliative care [R].

TYPICAL LIKELIHOOD

Typical likelihood of lung cancer based on 849,819 genetic variants we looked at

Please note: This report is not diagnostic and can't be used to make any medical decisions. Most cancers are uncommon and have a strong environmental component. Even if your genetic predisposition is high, you will most likely not develop the disease. This report doesn’t test for hereditary cancer syndromes or ‘cancer genes’. These are usually caused by rare mutations that can’t be analyzed by our test. If you're concerned about your risk of hereditary cancer, consider getting a specialized test at a reference laboratory.

Cardiovascular Disease

Cardiovascular disease is influenced by a combination of genetic, lifestyle, and environmental factors. Understanding these causes and risk factors is essential for prevention and effective management.

Genetic factors play a significant role in the development of cardiovascular disease. About 40-60% of differences in people's odds of heart disease may be due to genetics [R].

A family history of heart disease increases an individual's risk, as certain genetic mutations can affect cholesterol metabolism, blood pressure regulation, and the function of heart and blood vessels. For example, mutations in genes such as LDLR (low-density lipoprotein receptor) can lead to familial hypercholesterolemia, a condition characterized by high cholesterol levels and an increased risk of coronary artery disease.

Several lifestyle choices can significantly impact cardiovascular health:

- **Unhealthy Diet**: Diets high in saturated fats, trans fats, salt, and sugar can contribute to the development of atherosclerosis and hypertension.
- **Physical Inactivity**: A sedentary lifestyle increases the risk of obesity, hypertension, and diabetes, all of which are risk factors for CVD.
- **Smoking**: Tobacco use damages blood vessels, reduces oxygen in the blood, and raises blood pressure, significantly increasing the risk of heart disease.
- **Excessive Alcohol Consumption**: Drinking too much alcohol can lead to high blood pressure, heart failure, and stroke.

Other Risk Factors

- **Age**: The risk of cardiovascular disease increases with age, particularly after the age of 65.
- **Gender**: Men are generally at higher risk of developing CVD earlier in life compared to women, although post-menopausal women's risk increases.
- **High Blood Pressure**: Hypertension is a major risk factor as it puts extra strain on the heart and blood vessels.
- **High Cholesterol**: Elevated levels of LDL cholesterol contribute to the buildup of fatty deposits in arteries.
- **Diabetes**: Diabetes significantly increases the risk of CVD as high blood glucose levels can damage blood vessels.
- **Obesity**: Excess body weight, particularly around the abdomen, is associated with higher risk factors for CVD.

TYPICAL LIKELIHOOD

Typical likelihood of cardiovascular disease based on 1,049,427 genetic variants we looked at

59th

PERCENTILE

Your risk is **greater than 59% of the population** and **lower than 41% of the population.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
NOS3	rs2070744	CT
PEMT	rs12936587	GA
COMT	rs4680	GA
PCSK9	rs11591147	GG
ATG16L1	rs10210302	TT
NKX2-3	rs10883365	GG
FHL3	rs190569784	GG
SERPINA1	rs112635299	GG
ANGPTL4	rs116843064	GG
APOE	rs7412	CC
IRGM	rs1000113	CT
LDLR	rs6511720	GG
IL23R	rs11805303	CT
/	rs72711827	GG
SORT1	rs12740374	GG
PHACTR1	rs9349379	GG
FBXL20	rs72823390	CC
PLPP3	rs17114046	AA
/	rs2457480	AA
ADO	rs10761659	AG
MCTP2	rs28607113	TT

GENE	SNP	GENOTYPE
PHOSPHO1	rs191896574	TC
FAM177B	rs17465982	AA
NOS3	rs3918226	TC
MRPS6	rs28451064	AG
LPA	rs73596816	AG
PEMT	rs7946	CT
TWIST1	rs2107595	GA
EDNRA	rs17612693	AT
TCF21	rs1966248	AT
DDI1	rs2128739	AC
FGD5	rs148880716	GG
LPA	rs140570886	TT
LPA	rs147555597	GG
PTGER4	rs17234657	TT
LPA	rs55730499	CC
SEH1L	rs2542151	TT
NOD2	rs17221417	CC
BSN	rs9858542	GG
MAP3K4	rs145099029	AA
CDKN2B	rs145542470	GG
NBEAL1	rs72934535	TT
SCAF11	rs1291621	GG
MTRNR2L7	rs4934855	AA
LPL	rs7011846	GG
SOX11	rs79576311	GG
SMIM11A	rs149487184	CC
BMP1	rs73225842	CC
BAG2	rs223290	CC
LRRC25	rs11670056	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Alzheimer's Disease

Key Takeaways:

- About **60-80%** of differences in people's chances of getting Alzheimer's disease may be due to genetics.
- Alzheimer's disease can wipe out cognitive abilities.
- **5.8 million** Americans have Alzheimer's disease, the vast majority of them being over 75 years of age.
- Other risk factors include old age, female sex, air pollution, alcohol abuse, and obesity.
- **This report doesn't take into account the APOE-e4 variant.**

Some of the risk factors for Alzheimer's include [R]:

- Being over the age of 75
- Being female
- High exposure to air pollution
- Poor sleep patterns
- Alcohol abuse
- Sedentary lifestyle
- Low social interaction
- Low involvement in mentally stimulating activities

The following conditions may contribute to Alzheimer's disease [R]:

- Mild cognitive impairment
- Head trauma
- Obesity
- Diabetes
- High cholesterol
- Down syndrome

About **60-80%** of differences in people's chances of getting Alzheimer's disease may be due to genetics [R].

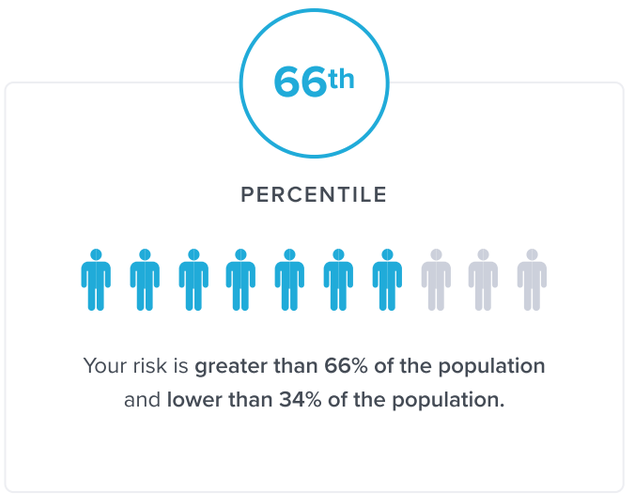
Genetically high fasting insulin, ApoB, and neutrophil levels may be causally associated with a higher risk of Alzheimer's disease [R, R, R, R].

In contrast, genetic predisposition to high total testosterone and glucosamine supplement use may be causally associated with a lower risk [R, R].

Please note: Genetic models analyzing a lot of variants (PRS models) usually don't take into account variants with large effects, such as **APOE-e4**. This variant is by far the strongest genetic factor for Alzheimer's disease. If you carry it, your predisposition to Alzheimer's disease is higher, regardless of your result for this report.

TYPICAL LIKELIHOOD

Typical likelihood of Alzheimer's disease based on 1,049,157 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CHRM2	rs6962027	TT
PICALM	rs3851179	TT
GSK3B	rs334558	GA
CD55	rs3818361	GA
POLR2E	rs12151021	AA
HLA-DRB1	rs9271192	CA
CD55	rs679515	CT
ECHDC3	rs7912495	GG
SORT1	rs11102972	CT
CLNK	rs6846529	CT
COX7C	rs62374257	CT
CPSF3	rs72777026	AG
WDR81	rs35048651	DEL(GAG)T
IGHG3	rs7157106	GA
LILRB5	rs587709	CT
SNX1	rs3848143	AG
GC	rs2282679	GT
CLU	rs11136000	CC
APOE	rs429358	TT
TREM2	rs75932628	CC
PTGS2	rs20417	GG

GENE	SNP	GENOTYPE
RELN	rs528528	CC
SETD7	rs535347112	CC
BDNF	rs56164415	GG
SYPL2	rs17646665	AA
NGFR	rs2072446	CC
SLC20A1	rs1800587	GG
TREML1	rs60755019	AA
SORL1	rs11218343	TT
NCK2	rs143080277	TT
TREM2	rs143332484	CC
SORT1	rs141749679	TT
GPX4	rs3764650	TT
ABI3	rs616338	CC
WWC1	rs17070145	TT
ATP8B4	rs138799625	CC
PILRB	rs1476679	TT
BIN1	rs744373	AA
SORL1	rs74685827	TT
BIN1	rs6733839	CC
MME	rs61762319	AA
SHARPIN	rs34173062	GG
FOXF1	rs16941239	TT
C1QTNF4	rs10838725	TT
DBNDD1	rs56407236	GG
APH1B	rs117618017	CC
CD2AP	rs9349407	GG
STYX	rs17125924	AA
RASGEF1C	rs113706587	GG
OTULIN	rs112403360	TT

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Age-Related Macular Degeneration

Key Takeaways:

- About **45-70%** of differences in people's chances of having AMD may be due to genetics.
- Other potential risk factors include age (60+), smoking, diet, race, high blood pressure, heart disease, and excessive sun exposure.
- About **8.5%** of people aged **45-85** have some degree of AMD. Symptoms include difficulty reading, blurred vision, and dark spots in the field of vision. Talk to your eye doctor if you notice any symptoms.
- If you have a high genetic risk, be aware of symptoms and have your eyes checked regularly, especially after age 60.
- Click the **Recommendations** tab for potential dietary and lifestyle changes.

Age-related macular degeneration (AMD) is a progressive eye disease that affects the macula, the part of the retina responsible for central vision. It is the leading cause of blindness in people over the age of 60.

About **45-70%** of differences in people's chances of having AMD may be due to **genetics** [R].

For example, genetically high ApoB levels may be causally associated with a lower risk of the intermediate and geographic atrophy (GA) subtypes of AMD [R].

Other factors that play a role in AMD development include:

- Age (60+)
- Smoking
- Excessive sun exposure
- Unhealthy diet
- Race (European)
- High blood pressure
- Heart disease

TYPICAL LIKELIHOOD

Typical likelihood of AMD based on 1,049,359 genetic variants we looked at

47th

PERCENTILE

Your risk is **greater than 47% of the population** and **lower than 53% of the population.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
NECTIN2	rs2075650	AA
MBL2	rs6480975	CC
SKIV2L	rs429608	GA
/	rs5749482	GG
APOE	rs4420638	AA
NLRC5	rs1864163	GG
C3	rs2230199	GC
PRDM1	rs7750345	AA
VEGFA	rs943080	TT
MCUB	rs4698775	GG
GLI2	rs6721654	CT
ZFP36L1	rs8017304	AA
NT5DC1	rs3812111	TT
MTRNR2L13	rs17586843	CT
IER3	rs3130783	GA
PICK1	rs8135665	CT
TNFRSF10A	rs13278062	GT
PRDM1	rs1355023	CT
CTSC	rs10830228	AG
ADAMTS9	rs6795735	TC
LRATD2	rs11986011	CC

GENE	SNP	GENOTYPE
ARMS2	rs10490924	GG
MAP2K2	rs10406174	GG
CFH	rs10737680	CC
CFH	rs1061170	TT
CFHR3	rs1329424	GG
CLIC5	rs4714888	GG
CMSS1	rs13081855	GG
LIPC	rs920915	GG
TGFBR1	rs334353	GG
B3GLCT	rs9542236	TT

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Artery Hardening

Key Takeaways:

- About 60% of differences in people's chances of having atherosclerosis may be due to genetics
- Risk factors: being male, high blood pressure and cholesterol, diabetes, obesity, smoking, lack of exercise, poor diet, and age.
- If you are at high genetic risk, you may lower your overall risk by taking action on risk factors that you can change.
- Artery hardening begins at a young age and your genetics, lifestyle, diet, and exercise may all impact how much and how fast it develops over the course of your lifetime.

Click the **Recommendations** tab for potential dietary and lifestyle changes and **next steps** for relevant labs.

The arteries are blood vessels that carry oxygen and nutrients from the heart to the rest of the body. Normally, they are elastic, able to expand and contract as blood flows through them [R, R].

Over time, some people's arteries may lose that flexibility. The blood vessel walls become thick and stiff. This is called artery hardening (*arteriosclerosis*) [R].

The most common type of artery hardening is atherosclerosis. In this condition, fatty substances build up on the blood vessel walls. This buildup is called plaque. It can narrow the arteries, which reduces blood flow. It can also burst and cause a blood clot [R, R, R].

Atherosclerosis is the underlying cause of about 50% of all deaths in the Western world[R].

Men may be more likely to develop atherosclerosis than women. The risk tends to increase with age [R, R].

Other risk factors for atherosclerosis include [R]:

- High blood pressure
- High cholesterol
- Underlying conditions (e.g., diabetes, obesity, sleep apnea)
- Cigarette smoking
- Lack of exercise
- Unhealthy diet
- **Genetics**

In most cases, atherosclerosis won't cause any symptoms. In fact, most people don't have symptoms until a blood vessel is so narrow that an organ stops receiving enough blood. Symptoms of moderate or severe atherosclerosis can vary depending on the artery affected. They can include [R]:

- Chest pain (for blood vessels feeding the heart)
- Weakness, loss of vision, slurred speech (for blood vessels feeding the brain)
- Leg or arm pain (for blood vessels feeding the limbs)
- High blood pressure or kidney failure (for blood vessels feeding the kidneys)

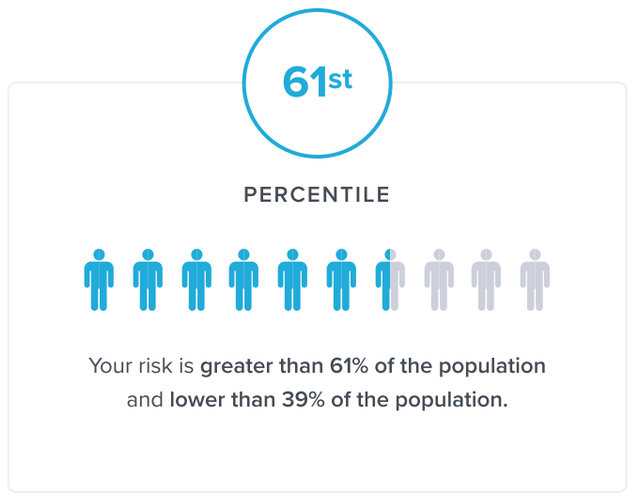
To prevent artery hardening, doctors recommend [R]:

- Quitting smoking
- Eating healthy foods
- Staying fit

Once the condition progresses, treatment options can include [R]:

TYPICAL LIKELIHOOD

Typical likelihood of atherosclerosis based on 51,264 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
PEMT	rs12936587	GA
NOS3	rs2070744	CT
ZNF668	rs9923231	TC
CDKN2A	rs4977574	GG
CDKN2B	rs10757278	GG
PCSK9	rs11591147	GG
PCSK9	rs562556	AA
PCSK9	rs28362286	CC
COMT	rs4680	GA
CETP	rs5882	GA
ICAM1	rs5498	AG
COMT	rs4633	CT
LRIG1	rs17045031	GG
EDNRA	rs1878406	TC
CCDC71L	rs17398575	AG
LDLR	rs6511720	GG
CDKN2B	rs9632884	CC
FMN1	rs4779614	CT
APOC1	rs445925	GG
FAM167A	rs6601530	GA
ZHX2	rs11781551	AG

- Medication
- Surgery
- Lifestyle changes

It's important to prevent, manage, or treat atherosclerosis. Left untreated, it can cause [R]:

- Heart attack
- Stroke
- Poor circulation in the arms and legs (peripheral artery disease)
- Bulges in blood vessels (aneurysms)
- Chronic kidney disease

Around 60% of differences in people's chances of artery hardening may be attributed to genetics. Genes involved in artery hardening may influence [R, R]:

- Cholesterol (*LRP6*)
- Inflammation (*ALOX5AP*, *LTA4H*)

Moreover, genetically high testosterone levels may be causally associated with a lower risk of atherosclerosis in men [R].

GENE	SNP	GENOTYPE
CYP1A2	rs762551	AA
LPA	rs3798220	TT
FOXO3	rs2802292	GG
CCDC71L	rs17477177	TT
STEAP1	rs259140	GG
BTN3A2	rs4712972	GG

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Cognitive Decline

Mild cognitive decline is a normal part of aging that can affect cognitive functions such as memory, attention, and problem-solving.

About **60-70%** of the differences in people's cognitive decline may come from genetics. For example, genetically high total and bioavailable testosterone may be causally associated with larger gray matter volume in men [R, R, R].

Other risk factors for cognitive decline include [R]:

- Older age
- Female sex
- Lifestyle factors like smoking and being inactive
- Lower education level

Different health conditions may play a role in cognitive decline, including high cholesterol and blood pressure [R].

LESS LIKELY

Less likely to have cognitive decline based on 272,168 genetic variants we looked at

2nd

PERCENTILE

Your risk is **greater than 2% of the population** and **lower than 98% of the population.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CDCA7	rs182734936	CC
ANXA5	rs141005242	CC
/	rs200668351	GG
TEK	rs147486058	AA
DUSP15	rs6089150	CC
CTBP2	rs61869228	CC
HHEX	rs60320343	AA
CRP	rs1205	CC
FOXO3	rs4946936	CC
APOE	rs7412	CC
CLU	rs11136000	CC
KIF11	rs6583817	CC
MS4A6A	rs610932	GG
TRIM32	rs7852872	CC
LHFPL6	rs9315702	AA
DPP4	rs6741949	GG
/	rs11706133	TT
WDFY2	rs9535753	TT
LAMP3	rs630527	GG
FOXJ2	rs7138264	GG
OPCML	rs11606197	TT

GENE	SNP	GENOTYPE
/	rs72956174	TT
B3GALNT1	rs4455332	CC
C3ORF56	rs11716691	AA
IRX2	rs72720951	AA
ZNF799	rs4804181	AA
/	rs57169846	GG
BDNF	rs6265	CT
ALCAM	rs34476301	AG
SIRT1	rs3758391	CT
TNF	rs1799724	CT
SNRPB	rs2076650	TC
A2M	rs11609582	TA
APBB2	rs13133980	GC
BCHE	rs1803274	CT
PRR16	rs3991625	CT
CEMIP2	rs12237894	GC
SALL1	rs2075199	CT
MRPS18C	rs10004897	AG
SALL3	rs7231688	AG
CHD6	rs6072411	GA
HSD11B1	rs60686175	TC
/	rs10457441	TT
TMEM106B	rs1990622	AG
APOE	rs429358	TT
TNS1	rs13013766	GG
/	rs62477365	TT
BCL11A	rs6545794	GG
IFNL3	rs73050457	CC
ABCA2	rs908832	GG

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Pancreatic Cancer

Several factors can increase the risk of pancreatic cancer, including:

- Smoking: Tobacco use is a significant risk factor.
- Age: Most cases occur in people over 65.
- Family history: A family history of pancreatic cancer or genetic syndromes like *BRCA2* mutations, Lynch syndrome, or familial pancreatic cancer increase the risk.
- Chronic pancreatitis
- Diabetes, especially if newly developed in older age.
- Obesity
- Certain genetic conditions like Peutz-Jeghers syndrome or cystic fibrosis
- Drinking a lot of alcohol

Treatment options depend on the stage of the cancer and may include [R]:

- Surgery: The Whipple procedure (pancreaticoduodenectomy) is the most common surgery for pancreatic cancer, removing the head of the pancreas, part of the small intestine, and other nearby structures.
- Chemotherapy: Drugs used to kill cancer cells or stop their growth, often used in combination with other treatments.
- Radiation therapy: Using high-energy rays to target and kill cancer cells, usually combined with chemotherapy.
- Targeted therapy: Drugs that target specific molecular changes in cancer cells.
- Immunotherapy: Treatments that help the immune system recognize and attack cancer cells, though this is less common for pancreatic cancer.

The prognosis for pancreatic cancer can be challenging due to its typically late-stage diagnosis. Survival rates vary based on the stage of the cancer, the patient's overall health, and the effectiveness of the treatment. Early-stage pancreatic cancer has a better prognosis, but the majority of cases are diagnosed at a more advanced stage.

Please note: This report is not diagnostic and can't be used to make any medical decisions. Most cancers are uncommon and have a strong environmental component. Even if your genetic predisposition is high, you will most likely not develop the disease. This report doesn't test for hereditary cancer syndromes or 'cancer genes'. These are usually caused by rare mutations that can't be analyzed by our test. If you're concerned about your risk of hereditary cancer, consider getting a specialized test at a reference laboratory.

LESS LIKELY

Less likely to have pancreatic cancer based on 35,160 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CLPTM1L	rs35226131	CC
ABO	rs505922	CC
NR5A2	rs3790844	AA
MKLN1	rs6971499	TT
NR5A2	rs2816938	AA
TERT	rs2736098	CC
CLPTM1L	rs401681	TT
BCAR1	rs7190458	GA
GRP	rs1517037	CC
HNF1B	rs4795218	GG
/	rs1561927	TT
RHOC	rs351365	CC
C12ORF43	rs1182933	TT
TTPAL	rs6073450	AA
TNS3	rs73328514	TA
MYC	rs10094872	TA
ARL6IP6	rs12478462	TG
INHBA	rs17688601	AC
HNF4G	rs2941471	AG
TP63	rs9854771	GA
EDNRA	rs6537481	GA
MICAL3	rs450960	CT
SMC2	rs10991043	CT
SMC2	rs2417487	AG
PLEKHN1	rs13303010	AA
SOX9	rs7214041	CC
KLF5	rs9543325	TT
IGFBP4	rs77038344	CC
PDX1	rs9581943	GG

GENE	SNP	GENOTYPE
XBP1	rs16986825	CC
ETAA1	rs1486134	TT
FOXF1	rs7200646	TT

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Muscle Loss

About **60%** of the differences in sarcopenia may be due to **genetics** [R].

Some genes associated with muscle growth, repair, and inflammation have been linked to sarcopenia susceptibility [R].

For example, genetically higher IGF-1 levels may be causally associated with higher muscle mass and a lower risk of muscle loss [R, R].

Factors that might increase the risk or intensity of sarcopenia include:

- Age: Older adults are at higher risk.
- Sedentary lifestyle
- Insufficient protein intake.
- Chronic illnesses (e.g., heart failure, chronic obstructive pulmonary disease (COPD), or cancer)
- Hormonal changes (e.g., reduced levels of growth hormone, testosterone, and insulin-like growth factor).
- Chronic inflammation.

LESS LIKELY

Less likely to have sarcopenia based on 10 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
NAV2	rs117775496	GG
KCNMA1	rs17415098	GG
DOCK5	rs11135857	CC
KHDC1L	rs6453647	CG
TTC9	rs148532338	CC
FDFT1	rs191172273	TT
PPARGC1A	rs145583424	GG
LRP1B	rs74659977	TT
ZNF622	rs31574	AA
FADS2	rs97384	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Longevity Markers

Longevity markers are critical indicators of biological age and overall health status as we age. This section focuses on important markers, including biological age, telomere length, and the Klotho protein, which have been linked to aging processes and lifespan.

Understanding and monitoring these markers can provide insights into your genetic predisposition for longevity and inform your health management strategies. This can empower you to take control of your health as you strive for a longer, healthier life.

SHORTER

Telomere Length

Predisposed to shorter telomeres

HIGHER LEVELS

Haptoglobin

Predisposed to higher haptoglobin levels

HIGHER LEVELS

Klotho

Predisposed to higher klotho levels

YOUNGER

Biological Age

Predisposed to lower biological age

Telomere Length

Telomeres serve as protective caps on chromosomes. As our cells divide, telomeres shorten. Hence, longer telomeres may protect against aging, and they are linked to a longer lifespan.

About 65% of differences in people's telomere length may be due to genetics [R].

The following dietary and lifestyle factors can contribute to telomere shortening:

- Smoking
- Obesity
- Sedentary lifestyle
- Unhealthy diet, particularly low in fiber
- Stress

SHORTER

Predisposed to shorter telomeres based on 277 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
ZGPAT	rs755017	AA
STN1	rs10786775	CC
GSTO1	rs9420907	AA
TERT	rs2736100	CA
TERT	rs7705526	AC
TERT	rs4449583	TC
ENTPD5	rs59192843	TT
STMN3	rs75691080	CC
STN1	rs11191865	AG
GPR37	rs59294613	AA
CD200R1	rs2613954	TT
DCLK2	rs60160057	AG
UNC80	rs56810761	CT
/	rs6038821	AA
ASB13	rs2386642	AA
RPL7	rs28365964	TT
RFWD3	rs62053580	AG
TENT2	rs62365174	AG
CALM1	rs3213718	CT
TSPYL6	rs11125529	CC
MYNN	rs10936599	CC
MPHOSPH6	rs7194734	TT
BTN3A2	rs34991172	TT
/	rs55710439	CC
SLK	rs9419958	CC
ZNF257	rs7253490	CC
BAG6	rs2736176	GG
TGM1	rs41293836	CC
TPD52L2	rs34978822	CC

GENE	SNP	GENOTYPE
NAF1	rs4691895	GG
MPHOSPH6	rs2967374	GG
SHISAL1	rs7510583	AA
PARP1	rs3219104	AC
NKX2-3	rs7095953	TT
SENP7	rs55749605	AA
KRTAP10-4	rs7276273	AA
STMN3	rs932827	TT
TERF2	rs3785074	AA
POT1	rs7776744	GG
PROKR2	rs6107615	TT
RASGRP1	rs9972513	TC
RTEL1-TNFRSF6B	rs41309367	TT
ZGPAT	rs73624724	TT
ZNF257	rs8105767	AA
CSMD1	rs57415150	GG

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Haptoglobin

Low haptoglobin levels indicate red blood cell destruction. It can happen due to [R]:

- Hemolytic anemia
- A reaction to blood transfusion
- Liver disease

Abnormally high haptoglobin levels may be due to [R]:

- IBD (ulcerative colitis)
- Joint issues
- Infections

Interestingly, high blood levels of haptoglobin have also been associated with **increased longevity**. Researchers suggest that haptoglobin may support longevity by reducing LDL levels [R, R].

Genetically higher haptoglobin levels may be causally associated with:

- Alzheimer's disease [R]
- High blood sugar (lower risk) [R]

HIGHER LEVELS

Predisposed to higher haptoglobin levels based on 42,570 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
HP	rs3213423	GG

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Klotho

The ***KL*** **gene** helps make the klotho protein. A *KL* gene variant, **rs9536314-GT**, may boost klotho release. Along with another variant (**rs9527025**), it makes a so-called **KL-VS** combination [R].

This combination may be linked to improved [R, R, R, R]:

- Longevity
- Cognitive function
- Heart and blood vessel health

It may also reduce the negative impact of the main *APOE* variant on Alzheimer's disease risk [R, R, R].

However, not all studies found the above benefits [R, R, R, R].

Carrying two copies of the rare KL-VS alleles ('T' of rs9536314 or 'G' of rs9527025) seems to have the opposite effects [R].

Other variants that increase or decrease klotho activity have been indirectly associated with longevity through their association with conditions such as:

- Cognitive decline ('G' of **rs1207568**) [R]
- Stroke ('G' of rs1207568, 'T' of **rs650439**) [R, R]
- High blood pressure ('G' of rs1207568) [R]
- Osteoarthritis ('G' of rs1207568) [R]
- Metabolic syndrome ('G' of rs1207568) [R]
- Atherosclerosis ('G' of **rs3752472**, 'T' of rs650439, 'G' of **rs732328**) [R, R]
- Non-diabetic kidney disease ('G' of **rs525014**, 'G' of **rs526906**, 'C' of **rs571118**, 'G' of **rs643780**) [R, R]
- Mortality from hemodialysis ('G' of **rs577912**) [R]

A major factor affecting klotho levels is **age**. It gradually decreases as you age, especially after the age of 40 and 70. **Kidney disease or injury** can also reduce klotho levels [R, R, R].

Finally, a study associated the 'C' alleles of **rs9536338** and **rs2283368** with increased longevity. However, this association couldn't be replicated in a different cohort of the study [R].

HIGHER LEVELS

Predisposed to higher klotho levels based on 24,121 genetic variants we looked at

90th

PERCENTILE

Your risk is **greater than 90% of the population** and **lower than 10% of the population.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
KL	rs9536314	TT
KL	rs9527025	GG
KL	rs1207568	GA
NADK2	rs732328	GG
KL	rs526906	GG
KL	rs571118	CC
KL	rs650439	TA
KL	rs643780	AG
KL	rs577912	TG
KL	rs2283368	TT
KL	rs525014	AA
KL	rs3752472	CC
KL	rs9536338	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Biological Age

The following factors may determine your biological age:

- Genetic factors: Certain genetic variants can influence the rate of aging.
- Cellular health: Including telomere length, DNA damage, and cellular senescence.
- Metabolic functions: Such as blood sugar levels, cholesterol, and hormone levels.

Some strategies that may help you age healthy and maintain a relatively lower biological age include:

- Eating a healthy diet
- Engaging in regular exercise
- Maintaining a healthy weight
- Optimizing sleep
- Managing stress
- Avoiding harmful substances like tobacco and excessive alcohol

YOUNGER

Predisposed to lower biological age based on 21 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
DNTT	rs941997	AA
ARHGAP22	rs4838595	CC
ZNF248	rs10508861	AA
RIN1	rs12417758	TC
MANBA	rs93059	GA
CYP2J2	rs752223	GG
UBASH3B	rs73028070	GG
EDARADD	rs678553	TT
ZMIZ2	rs1990053	AA
SETBP1	rs7228835	GC
CYRIA	rs62114564	GG
ASPA	rs3829957	CT
TPMT	rs4294009	TG
ZNF25	rs117932856	TT
MICB	rs3093956	TT
/	rs111731678	AA
NHLRC1	rs75407001	CC
MSI2	rs116853700	GG
ZFHX3	rs34970912	CC
DIP2C	rs11253338	CC
NKX2-3	rs11190127	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Longevity Genes

The study of longevity genes has revealed various genetic factors that can influence lifespan and healthy aging. This section examines key genes associated with longevity, such as SIRT1, TERT, and PPARD, which are known to play roles in cellular repair, metabolism, and stress responses.

Understanding these genetic influences can help you recognize your inherent predispositions towards longevity. Collaborating with healthcare professionals based on your genetic profile can optimize your approach to healthy aging and wellness.

WORSE

PPARD (Longevity)

Likely worse PPARD genetics

LOWER ACTIVITY

ADA (Cognition/Longevity)

Likely lower ADA activity

WORSE GENETICS

PARP1 (Longevity, Cognition)

Likely worse PARP1 genetics

TYPICAL ACTIVITY

SIRT1 (Longevity)

Likely typical SIRT1 activity

TYPICAL ACTIVITY

TERT (Longevity)

Likely typical TERT activity

TYPICAL ACTIVITY

OBFC1 (Longevity)

Likely typical OBFC1 activity

TYPICAL GENETICS

AKT1 (Longevity)

Likely typical AKT1 genetics

TYPICAL ACTIVITY

APOC3 (Blood Lipids/ Longevity)

Likely typical APOC3 activity

TYPICAL ACTIVITY

FOXO3 (Longevity)

Likely typical FOXO3 activity

TYPICAL ACTIVITY

TAS2R16 (Bitter Taste/ Longevity)

Likely typical TAS2R16 activity

LOWER ACTIVITY

CETP (Cholesterol/ Longevity)

Likely lower CETP activity

BETTER

IGF1R (Longevity)

Likely better IGF1R genetics

HIGHER ACTIVITY

CFH (Eye Health/ Longevity)

Predisposed to higher CFH activity

PPARD (Longevity)

The rs2016520 polymorphism (also known as *PPARD* +294T/C) was found to be significantly more common in those who live exceptionally long lives. According to a study of nearly 1,000 Chinese people originating from a region called Bama, **the 'TT' genotype is more frequently found in those aged 90 and above** [R].

However, this association was only present in women. Moreover, long-lived individuals also had significantly *higher* cholesterol and triglyceride levels compared to younger subjects.

According to some researchers, *PPARD* may be able to improve longevity by counteracting some of the processes seen in aging [R].

For example, as humans age, the body naturally shifts from using fats as the preferred energy source to using carbohydrates. The *PPARD* gene counteracts this shift by promoting the use of fat as energy. By improving fat metabolism, *PPARD* may increase longevity by preventing health disorders related to increased body fat [R].

Oxidative stress related to inflammation and insulin resistance also increase with age. Activation of *PPARD* can potentially counteract these processes, which may also contribute to longer lifespans [R].

WORSE

Likely worse PPARD genetics based on the genetic variants we looked at

37%

OF USERS SHARE THE SAME SCORE

You have the same genetic predisposition as **37% of our users.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
DEF6	rs2016520	CT

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

ADA (Cognition/Longevity)

The ‘T’ allele of **rs73598374** encodes a protein with an amino acid substitution resulting in a 35% reduced ADA activity. As a result, carriers have higher adenosine levels and less inosine [R].

This variant has been associated with worse attention performance, probably because the increased tiredness and fatigue caused by adenosine buildup may worsen attention span [R].

Regarding longevity, this variant has been linked to reduced odds of living past 88 years old but increased odds of living between 68 and 88 years in men. Two mechanisms may explain the dual effects of this variant. On the one hand, it has been associated with shorter telomeres, which would reduce the odds of reaching a very advanced age. On the other hand, adenosine reduces coronary artery disease risk and ischemic attack mortality, potentially reducing the risk of premature death [R, R].

LOWER ACTIVITY

Likely lower ADA activity based on the genetic variants we looked at

12%

OF USERS SHARE THE SAME SCORE

You have the same genetic predisposition as **12% of our users.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
ADA	rs73598374	TC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

PARP1 (Longevity, Cognition)

The minor ‘T’ allele of **rs7515023** has been associated with an enhanced PPAR1 regulation, meaning carriers are closer to the “sweet spot” between having too low or too high levels of the active PARP1 enzyme. Probably because it reduces oxidative stress and inflammation in the brain, this variant has been associated with a decreased risk of cognitive disorders and “brain fog” [R, R, R].

Another minor allele, ‘T’ at **rs1805415**, was associated with a decreased lifespan in a study of over 5,000 participants. This may be in part explained by the pro-inflammatory effects of this variant since it has been associated with a 15-20% increase in IL-6 levels [R, R].

In contrast, the minor ‘C’ allele of **rs3219090** is the one associated with a longer lifespan due to a decreased incidence of malignant melanoma. This variant may increase PPAR1 activity, potentially enhancing its ability to repair DNA damage [R, R, R].

WORSE GENETICS

Likely worse PARP1 genetics based on 3 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
PARP1	rs3219090	TT
H3-3A	rs7515023	CT
PARP1	rs1805415	TC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

SIRT1 (Longevity)

A handful of studies have shown that people with certain *SIRT1* variants are more likely to live very long lives. One of the variations with the strongest effect so far is rs12778366: even one copy of the 'C' allele may reduce all-cause mortality risk by as much as 30%. This variant also increases glucose tolerance and is believed to increase SIRT1 levels [R, R].

Another SNP with a large potential impact on lifespan is rs7895833: the 'G' allele here is almost twice as common in older people as it is in the average adult. Carriers of the 'AA' genotype have lower levels of this protein [R, R].

The 'T' allele of rs3758391 variant has been associated with reduced cardiovascular mortality and decreased cognitive decline during aging. This variant increases SIRT1 levels [R, R, R].

The 'A' allele of rs7896005 is more common among longer-lived populations. This variant has been associated with major cardiovascular outcomes such as myocardial infarction, coronary heart disease, heart failure, or peripheral artery disease in people with type 2 diabetes. This variant may have increased affinity for some of its target proteins [R, R, R].

Finally, the 'T' allele of rs2273773 has been associated with higher blood pressure, blood sugar, and risk of obesity and heart disease. However, carriers of the 'C' allele may have higher odds of artery calcification and two studies found no association between this variant and longevity [R, R, R, R, R, R].

TYPICAL ACTIVITY

Likely typical SIRT1 activity based on 5 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SIRT1	rs7895833	AA
SIRT1	rs12778366	TC
SIRT1	rs3758391	CT
SIRT1	rs7896005	GA

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

TERT (Longevity)

The *TERT* gene has a lot of known variations. Most people will probably have a mix of variations that increase and decrease relative telomere length, so it's important to look at as many SNPs as possible to see which way you lean. The following variants have been associated with an increased telomere length, potentially increasing longevity while reducing the risk of neurodegenerative diseases [R, R, R, R, R, R]:

- 'T' at **rs2736108**
- 'A' at **rs7705526**
- 'C' at **rs2736100**
- 'A' at **rs7705526**
- 'T' at **rs4449583**
- 'G' at **rs33961405**
- 'C' at **rs10069690**
- 'A' at **rs13167280**
- 'A' at **rs2075786**
- 'G' at **rs2242652**
- 'A' at **rs2735940**
- 'C' at **rs2736098**
- 'A' at **rs2853669**
- 'A' at **rs2853672**
- 'C' at **rs2853676**
- 'A' at **rs2853677**
- 'C' at **rs4975605**

TYPICAL ACTIVITY

Likely typical TERT activity based on 17 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SLC6A3	rs2736108	CC
TERT	rs2075786	GG
TERT	rs7705526	AC
TERT	rs2736100	CA
TERT	rs4449583	TC
TERT	rs10069690	TC
TERT	rs13167280	GA
TERT	rs2242652	AG
SLC6A3	rs2735940	AG
TERT	rs2853672	CA
TERT	rs2853676	TC
TERT	rs2853677	GA
TERT	rs4975605	CC
TERT	rs33961405	GG
CLPTM1L	rs2853669	AA
TERT	rs2736098	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

OBFC1 (Longevity)

The following alleles have been associated with longer telomeres and are more commonly found in very elderly people [R]:

- ‘G’ of **rs10786775**
- ‘G’ of **rs11191865**
- ‘A’ of **rs4387287**
- ‘T’ of **rs9419958**
- ‘C’ of **rs9420907**

Population frequencies of these SNPs vary a lot between ethnic groups. Generally speaking, the long-telomere-associated alleles are much more common in African descendants than in any other group on the planet.

For example, though only 22% of all people have at least one ‘G’ (long telomere) allele at rs10786775, almost 60% of people of African descent do. Likewise, at rs4387287, 16% of all people have the long-telomere-associated ‘AA’ genotype, while 51% of African descendants do!

The reverse is true for European descendants, who tend to have fewer of the long-telomere-associated alleles: at rs4387287, only 2.4% of Europeans have the ‘AA’ genotype.

TYPICAL ACTIVITY

Likely typical OBFC1 activity based on 5 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
STN1	rs10786775	CC
GSTO1	rs4387287	CC
SLK	rs9419958	CC
GSTO1	rs9420907	AA
STN1	rs11191865	AG

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

AKT1 (Longevity)

A meta-analysis using data collected from 3 different population studies found that the **“GG” genotype at rs3803304** is linked to a **shorter lifespan** [R].

The researchers of the study are unsure how exactly this gene affects lifespan. They found that rs3803304 is associated with deaths due to cardiovascular disease and non-cancer causes [R].

However, not all studies have found an association between the *AKT1* variants and longevity [R, R].

Animal research suggests that AKT1 may improve longevity through the activation of IGF-1 and FOXO3A, although human studies are lacking [R, R, R].

TYPICAL GENETICS

Likely typical AKT1 genetics based on the genetic variants we looked at

92%

OF USERS SHARE THE SAME SCORE

You have the same genetic predisposition as **92% of our users.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
AKT1	rs3803304	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

APOC3 (Blood Lipids/ Longevity)

The main *APOC3* variants, **rs5128** and **rs2542052**, may influence the metabolism of blood lipids. Their **"C" alleles** are linked to [R, R, R]:

- Lower triglycerides
- Lower LDL or "bad" cholesterol levels
- Higher HDL or "good" cholesterol levels

However, their impact on cardiovascular health is less clear. A meta-analysis of 79 studies looked at the link between stroke and APOC3, along with many other related genes. According to the results, rs5128 and other *APOC3* SNPs have no association with stroke [R].

When it comes to direct links with longevity, a study looked at rs2542052 in Ashkenazi Jews. The results suggest that the **"CC" genotype** may be more common in people who live past 100 years old. They also had better cardiovascular health and glucose metabolism [R].

However, one study looked at 749 American Caucasians who have exceptionally long lifespans and found no association between rs2542052 and longevity [R].

Finally, the rare **"A"** allele of **rs138326449** encodes a version of the protein with impaired function. This variant has been associated with decreased triglyceride and VLDL cholesterol but increased HDL cholesterol levels [R, R, R, R].

TYPICAL ACTIVITY

Likely typical APOC3 activity based on the genetic variants we looked at

50%

OF USERS SHARE THE SAME SCORE

You have the same genetic predisposition as **50% of our users.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SIDT2	rs2542052	AC
PCSK7	rs5128	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

FOXO3 (Longevity)

In the last decade or so, a large body of research has linked certain variants in the FOXO3 gene with longer lifespan. They include [R, R, R, R, R, R, R]:

- ‘G’ at rs12212067
- ‘G’ at rs768023
- ‘C’ at rs2253310
- ‘A’ at rs2802288
- ‘G’ at rs12202234
- ‘G’ at rs17069665
- ‘C’ at rs9398171
- ‘G’ at rs3800230
- ‘C’ at rs1935952
- ‘T’ at rs9400239
- ‘T’ at rs479744
- ‘G’ at rs2802292
- ‘T’ at rs4946936
- ‘A’ at rs6911407
- ‘C’ at rs2764264

Interestingly, the effects of some of these variants may be strongest in people who spend more time in nature [R].

The ‘G’ allele of rs12212067 has also been associated with a milder course of Crohn’s disease, as well as with stronger effects of beneficial (sweet potatoes) and harmful (wasabi, mustard, tomatoes) foods on this condition [R, R].

Many of these variants have been associated with increased FOXO3 levels [R, R, R, R, R, R].

TYPICAL ACTIVITY

Likely typical FOXO3 activity based on 14 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
FOXO3	rs12212067	TT
FOXO3	rs4946936	CC
FOXO3	rs12202234	CC
FOXO3	rs17069665	AA
FOXO3	rs9398171	TT
FOXO3	rs3800230	TT
FOXO3	rs9400239	CC
FOXO3	rs479744	GG
FOXO3	rs2764264	TT
ARMC2	rs6911407	AA
FOXO3	rs2802292	GG
ARMC2	rs768023	GG
FOXO3	rs2802288	AA
FOXO3	rs2253310	CC
FOXO3	rs1935952	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

TAS2R16 (Bitter Taste/ Longevity)

Some researchers have suggested that people with highly sensitive bitter taste receptors may not consume as many bitter foods—including healthy vegetables like broccoli [R, R, R].

Some people think broccoli and Brussels sprouts taste good, while others can't see past their bitter qualities. But avoiding vegetables may have consequences: people who regularly eat cruciferous vegetables live, on average, longer lives than those who don't [R].

Certain variants of *TAS2R16* may improve the subjective taste of cruciferous vegetables and other bitter foods. People with these alleles may be naturally inclined to seek out and eat more of these foods and, thus, pursue a healthier diet. These include [R]:

- 'C' at **rs6466849**
- 'C' at **rs860170**
- 'T' at **rs978739**

One especially strange possible link between *TAS2R16*, taste, and longevity crops up at rs6466849. People with the 'C' allele here are both more likely to live longer and less likely to think red wine tastes sour (using vinegar as a point of comparison) [R, R].

TYPICAL ACTIVITY

Likely typical TAS2R16 activity based on 3 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
TAS2R16	rs860170	TT
TAS2R16	rs6466849	CT
TAS2R16	rs978739	TC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

CETP (Cholesterol/ Longevity)

Certain variants in *CETP* are associated with longevity in some studies. According to researchers, this life-extending effect may be due to improved cholesterol levels, which may help prevent a number of heart conditions [R].

Longevity research has focused on two particular variants. The 'GG' genotype in **rs5882** (also known as the "I405V" polymorphism) and the 'AA' genotype in **rs708272** (also called the "TaqIB" polymorphism) have each been associated with lower CETP activity and longer lifespan [R].

These variants have also been associated with a more favorable blood lipid profile characterized by [R, R, R, R, R, R]:

- Higher HDL
- Larger HDL and LDL particle size
- Higher apolipoprotein A-I
- Lower triglycerides

LOWER ACTIVITY

Likely lower CETP activity based on the genetic variants we looked at

15%

OF USERS SHARE THE SAME SCORE

You have the same genetic predisposition as **15% of our users.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CETP	rs5882	GA
CETP	rs708272	AA

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

IGF1R (Longevity)

There is some evidence that certain genetic variations in the *IGF1R* gene are associated with longer lifespans.

For example, one study examined the **rs2229765** SNP of 668 elderly people from Northeastern Italy. Researchers found that the 'A' allele in this SNP is much more common in those who live past 85 years of age. The 'A' allele in **rs2229765** was also associated with *lower* blood levels of IGF1 [R].

However, these associations were only found in males. The SNP **rs2229765** had no association with longevity or IGF1 levels in women [R].

Another study looked at the **rs34516635** SNP in 384 Ashkenazi Jews. According to this study, the rare 'A' allele in this SNP was more common in those who were 100 years or older [R].

However, this second study only found an association with longevity in females. Researchers also found that women with the 'A' allele had *higher* blood levels of IGF1. These results contradict what was found in the first study and it's not exactly clear why [R].

BETTER

Likely better IGF1R genetics based on the genetic variants we looked at

OF USERS SHARE THE SAME SCORE

You have the same genetic predisposition as **12% of our users.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
IGF1R	rs34516635	GG
IGF1R	rs2229765	AA

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

CFH (Eye Health/ Longevity)

The main *CFH* variant is **rs1061170**. Almost 45% of the world population has at least one copy of its **minor 'C' allele**, which makes the CFH protein less functional [R].

This variant correlates with up to **2x higher rates of age-related macular degeneration (AMD)**, a serious eye condition affecting the elderly [R, R].

It has been associated with **reduced lifespan** in a follow-up study on 90-year-olds. The authors of this study proposed that long-term hyperactivation of the immune system may end up reducing its ability to fight off infections (which can be especially dangerous in older age) [R].

Regarding the SNP's links to death from heart disease, the results are mixed. While some studies found an increased frequency of heart disease in carriers of this allele, others found no association [R, R, R, R, R].

Other important *CFH* variants linked to AMD are **rs800292** and **rs2274700** [R, R].

HIGHER ACTIVITY

Predisposed to higher CFH activity based on 3 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CFH	rs2274700	AA
CFH	rs1061170	TT
CFH	rs800292	AA

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Recommendations Details

1 Aerobic Exercise (Cardio)

Engage in at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity activity each week. Distribute this time over at least 3 days per week, avoiding consecutive days of vigorous exercise to allow for recovery.

TYPICAL STARTING DOSE

1 hour

Helps with these Symptoms & Conditions:

Allergies | Anxiety | High Blood Pressure | Migraines

Helps with these Goals:

Energy | Immunity | Mood

Helps with these DNA Risks:

Colorectal Cancer | Prostate Cancer | Frailty | Telomere Length

Helps with these Lifestyle Risks:

Prostate Cancer

2 Mediterranean Diet

Incorporate a variety of primarily plant-based foods, such as fruits, vegetables, whole grains, nuts, and legumes, into every meal. Choose healthy fats, like olive oil, over saturated fats and consume fish and poultry at least twice a week. Limit red meat to a few times a month and include a moderate amount of dairy products. Opt for water and red wine in moderation as your beverages.

Helps with these Symptoms & Conditions:

Allergies | High Blood Pressure

Helps with these Goals:

Energy
Mood

Helps with these DNA Risks:

Colorectal Cancer
Prostate Cancer
Frailty
PPARD (Longevity)
Telomere Length

Helps with these Lifestyle Risks:

Prostate Cancer

3 Maintain Optimal Vitamin D Levels

Check your vitamin D levels, they should ideally be in the 30-66 ng/mL range. If your levels are lower than that, take a vitamin D supplement, 1000-4000 IU daily, to reach an optimal range.

TYPICAL STARTING DOSE
1000 iu

Helps with these Symptoms & Conditions:

Allergies
Anxiety
High Blood Pressure
Migraines

Helps with these Goals:

Energy
Immunity
Mood
Muscle Growth

Helps with these DNA Risks:

Colorectal Cancer
Prostate Cancer
Frailty
Telomere Length

Helps with these Lifestyle Risks:

Prostate Cancer

4 Green Tea

Consume 400 mg of green tea extract daily. This can be taken in the form of capsules or tablets available that specify the amount of green tea extract. Ensure the supplement is taken according to the product's specific instructions, usually once a day with water.

TYPICAL STARTING DOSE

400 mg

Helps with these Symptoms & Conditions:

- Anxiety
- High Blood Pressure

Helps with these Goals:

- Energy
- Immunity
- Mood

Helps with these DNA Risks:

- Colorectal Cancer
- Prostate Cancer
- Telomere Length

Helps with these Lifestyle Risks:

- Prostate Cancer

5 Avoid Organochlorine Pesticide Exposure

Minimize exposure by choosing organic fruits and vegetables, thoroughly washing produce before consumption, and avoiding areas where organochlorine pesticides are applied. Consider using air purifiers in homes close to agricultural areas to reduce indoor pesticide levels.

Helps with these Symptoms & Conditions:

- High Blood Pressure

Helps with these DNA Risks:

- Colorectal Cancer
- Prostate Cancer

Helps with these Lifestyle Risks:

- Prostate Cancer

6 Curcumin

Take a 500 mg curcumin supplement daily with food. To enhance absorption, take it with a meal that contains fats or oils since curcumin is fat-soluble.

TYPICAL STARTING DOSE

500 mg

Helps with these Symptoms & Conditions:

- Allergies
- Anxiety
- High Blood Pressure

Helps with these Goals:

- Energy
- Exercise Recovery
- Immunity
- Mood

Helps with these DNA Risks:

- Colorectal Cancer
- Prostate Cancer

Helps with these Lifestyle Risks:

- Prostate Cancer

7 Methylfolate

Take an L-methyl folate supplement (400-800 micrograms daily), ideally with a meal, to improve absorption. This dosage is recommended for adults, including pregnant women, to support overall health, especially to reduce the risk of neural tube defects in developing fetuses. Continue daily use as part of your regular supplement routine.

TYPICAL STARTING DOSE

400 mcg

Helps with these Symptoms & Conditions:

- High Blood Pressure

Helps with these Goals:

- Immunity
- Mood

Helps with these DNA Risks:

Colorectal Cancer

Telomere Length

8 Strength Training

Engage in strength training exercises, such as weight lifting or bodyweight exercises, for 60 minutes per session, 2 to 3 times per week. Ensure you work all major muscle groups and rest each muscle group for at least 48 hours before exercising it again.

TYPICAL STARTING DOSE

1 hour

Helps with these Symptoms & Conditions:

Anxiety

High Blood Pressure

Helps with these Goals:

Immunity

Mood

Muscle Growth

Helps with these DNA Risks:

Colorectal Cancer

Frailty

9 Cruciferous Vegetables

Incorporate a serving of cruciferous vegetables, such as broccoli, cauliflower, Brussels sprouts, kale, or cabbage, into at least one meal each day. A serving size is about a half cup cooked or one cup raw. Try to maintain this habit consistently over time for the best health outcomes.

Helps with these Symptoms & Conditions:

High Blood Pressure

Helps with these Goals:

Immunity

Helps with these DNA Risks:

Colorectal Cancer

Prostate Cancer

Helps with these Lifestyle Risks:

- Prostate Cancer

10 Garlic Supplement

Take a garlic supplement, such as a garlic extract or aged garlic supplement, in a dosage of 600-1,200 mg per day, divided into separate doses. This should be taken with meals to minimize digestive issues. Continue daily for at least 8-12 weeks to evaluate its effects on health markers like blood pressure or cholesterol.

TYPICAL STARTING DOSE

200 mg

Helps with these Symptoms & Conditions:

- High Blood Pressure

Helps with these Goals:

- Exercise Recovery
- Immunity

Helps with these DNA Risks:

- Colorectal Cancer
- Prostate Cancer

Helps with these Lifestyle Risks:

- Prostate Cancer

11 Avoid Air Pollution

Stay indoors on days when air quality indexes (AQI) indicate high pollution levels, which are often reported by weather services or government environmental agencies. **Install air purifiers** in your home, especially in bedrooms, to reduce indoor pollutants. Limit outdoor exercise when air pollution warnings are issued, opting for indoor activities instead.

Helps with these Symptoms & Conditions:

- Allergies
- Anxiety
- High Blood Pressure

Helps with these Goals:

Immunity Mood

Helps with these DNA Risks:

Colorectal Cancer Telomere Length

12 Fruits And Vegetables

Increase your intake of fruits and vegetables to at least five servings per day, aiming for a variety of types and colors to ensure a broad range of nutrients. Each serving size should roughly be the amount you can fit in one hand. Try to incorporate at least one serving of fruits or vegetables into every meal and snack throughout the day.

Helps with these Goals:

Energy Immunity

Helps with these DNA Risks:

Colorectal Cancer PPARD (Longevity) Telomere Length

13 Avoid Asbestos

Check for the presence of asbestos in materials in old buildings, especially those built before the 1980s, before doing any renovations or demolitions. Avoid disturbing materials that might contain asbestos, such as insulation, tiles, and roofing. If asbestos needs to be removed, hire professionals who specialize in asbestos abatement.

Helps with these DNA Risks:

Colorectal Cancer Prostate Cancer

Helps with these Lifestyle Risks:

Prostate Cancer

14 Eat Fiber-Rich Foods

Incorporate foods high in fiber, such as fruits, vegetables, whole grains, and legumes, into your daily meals. Aim for a total dietary fiber intake of 25 to 30 grams per day, spread out over all meals.

Helps with these DNA Risks:

- Colorectal Cancer

15 Alpha-Linolenic Acid (ALA)

Incorporate foods high in alpha-linolenic acid (ALA) into your daily diet. This means eating about a tablespoon (14 grams) of flaxseeds or chia seeds, a quarter cup (30 grams) of walnuts, or using one tablespoon of flaxseed oil every day.

Helps with these Symptoms & Conditions:

- High Blood Pressure

Helps with these DNA Risks:

- Colorectal Cancer
- Prostate Cancer

Helps with these Lifestyle Risks:

- Prostate Cancer

Next Steps

Remember, your genes only tell one important part of your health story!

Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

Your Lifestyle Assessments

Ever heard of the term Nature vs. Nurture?

The thing is, both DNA and environment play a role in determining your health risks. The following assessments shows how much of an impact your lifestyle, environment and medical history are having on your health risks.

LIFESTYLE

You have a slightly increased risk of prostate cancer based on the answers you provided.

Factors impacting your risk:

Your BMI:
30.77
Increasing Risk

Do you smoke tobacco?
No, never
Decreasing Risk

What is your ethnicity?
Other
No impact

What is your height?
178 cm
No impact

What is your current weight?
97.5 kg
No impact

LIFESTYLE

You have a slightly reduced risk of reduced longevity based on the answers you provided.

Factors impacting your risk:

How much sleep do you get in a typical night?

6 hours or less

Increasing Risk

How many cups of coffee do you drink on a typical day?

0

Increasing Risk

Your BMI:

30.77

Increasing Risk

In a typical week, how many times do you participate in any physical activities or exercise for 30 minutes at a time? (such as walking, running, bike riding, weight training, yoga, etc.)

*Note: longer exercise equals more sessions (e.g., 1 hour = 2 sessions)

8 or more

Decreasing Risk

Do you smoke tobacco?

No, never

Decreasing Risk

How often do you eat fish?

1 or more times a week

Decreasing Risk

Do you regularly eat 5 or more servings of fruit or vegetables a day?

Yes

Decreasing Risk

How many times a week do you eat processed meat (e.g., ham, sausage, beef jerky, etc.)?

0-2

Decreasing Risk

How often do you eat meat?

Once a day

Decreasing Risk

Have you ever been diagnosed with alcohol use disorder?

No

Decreasing Risk

What is your height?

178 cm

No impact

What is your current weight?

97.5 kg

No impact

LIFESTYLE

You have a reduced risk of pancreatic cancer based on the answers you provided.

Factors impacting your risk:

What is your blood type?

AB

Increasing Risk

Have you ever been diagnosed with chronic pancreatitis (pancreas inflammation)?

Yes

Increasing Risk

Your BMI:

30.77

Increasing Risk

Have you ever been diagnosed with diabetes?

No

Decreasing Risk

Do you smoke tobacco?

No, never

Decreasing Risk

How much alcohol do you drink on a typical day?
Calculate your alcohol consumption in units here

0 units

Decreasing Risk

Do you have a parent or sibling who has ever been diagnosed with pancreatic cancer?

No

Decreasing Risk

What is your height?

178 cm

No impact

What is your current weight?

97.5 kg

No impact

What is your sex?

Male

No impact