SelfDecode™

Melanoma

Disease Report

REPORT CATEGORIES

LONGEVITY

SKIN & BEAUTY

CANCER

Sample Client

Report date: 15 January 2026

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Personal information

NAME

Sample Client

SEX AT BIRTH

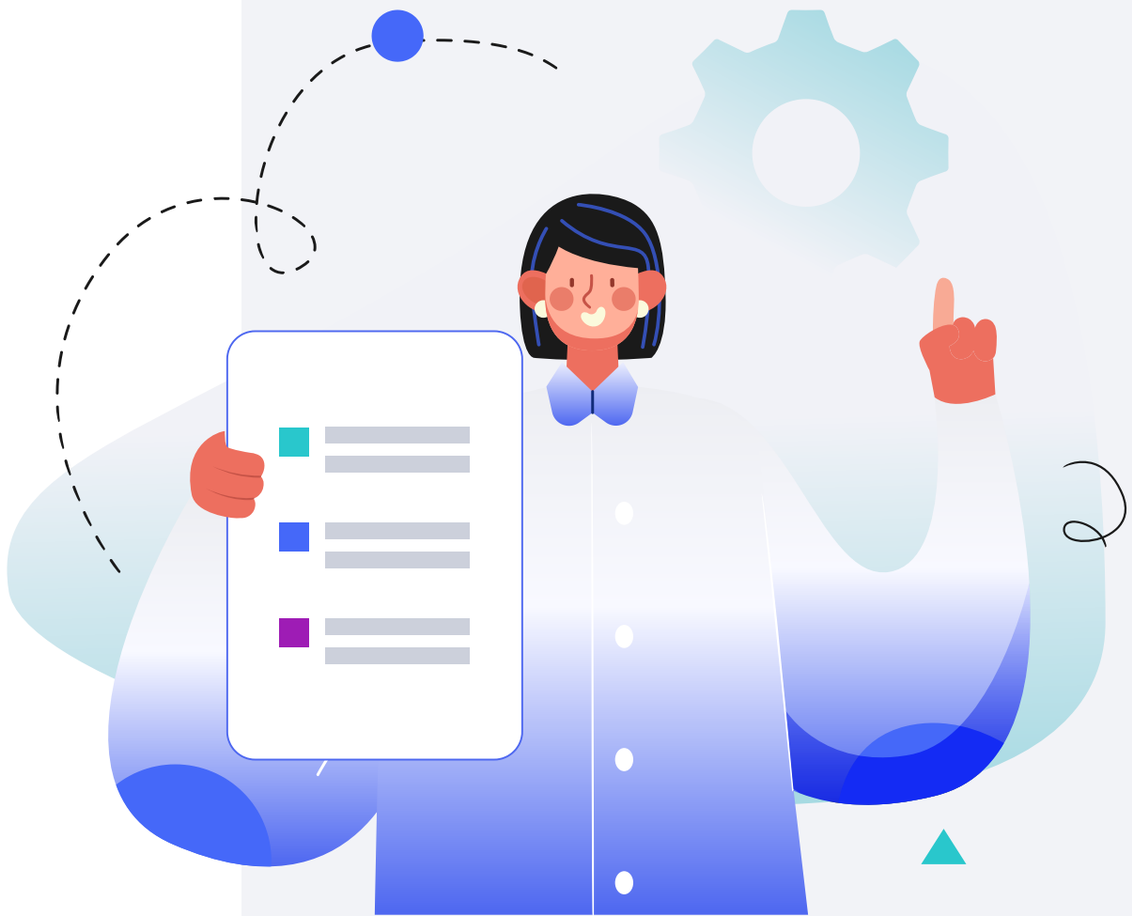
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

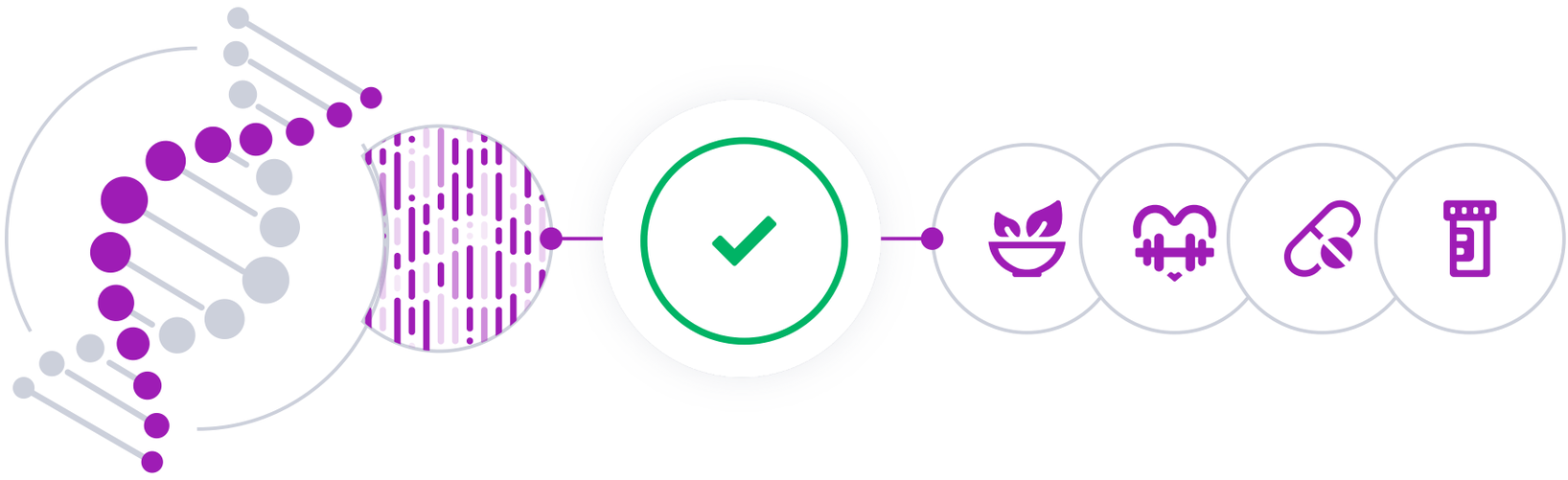


DISCLAIMER

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.

How this works

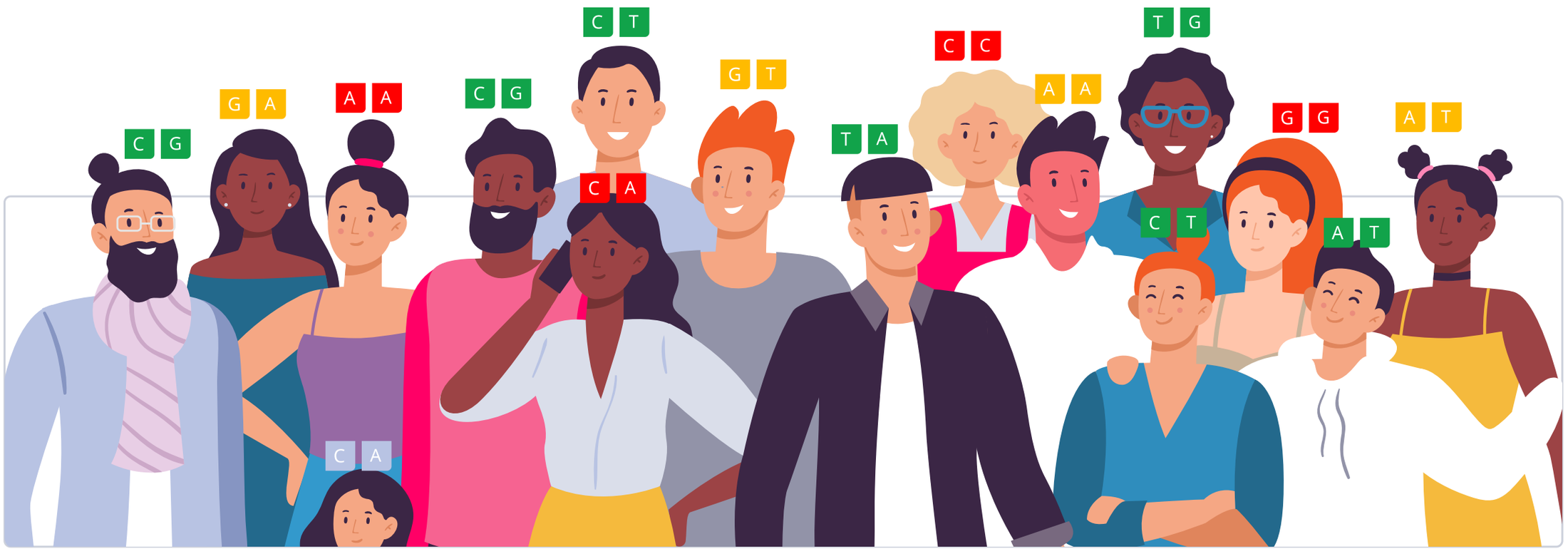
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



Similarly, our Trait Reports look at how your DNA influences your traits.

Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



We use artificial intelligence and machine learning to analyze all this information. We then summarize your results as a risk score or display it on a gauge.

When we give a risk score, the risk icon tells you if you are at a higher or lower risk compared to other people:

In total, we analyze up to 83 million genetic variants.

Genotype color info: AA You don't have any risk alleles | AA You have 1 risk allele | AA You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs.
The following icons tell you which category a recommendation falls into:

Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):

Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

5 / 5

Recommendations that are considered effective and generally recommended by experts and medical bodies.

4 / 5

Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.

3 / 5

Recommendations that are considered possibly effective and have many studies supporting them

2 / 5

Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.

1 / 5

Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.

0 / 5

No evidence in humans.

Genotype-specific Evidence

High-quality

Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, afew large clinical trials, or a meta-analysis).

Medium-quality

Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).

Low-quality

Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).

Indirect

A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).

In theory

A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

Melanoma is a type of skin cancer that develops in melanocytes, the cells responsible for producing the pigment melanin. Melanoma is less common than other types of skin cancer, like basal cell carcinoma and squamous cell carcinoma, but it is more aggressive and more likely to spread (metastasize) to other parts of the body if not detected early [R].

Melanoma often appears as a new spot on the skin or a change in an existing mole. It can have an irregular shape, multiple colors (such as brown, black, red, blue, or white), and may be asymmetrical. While it can develop anywhere on the body, it most commonly occurs on areas exposed to the sun, such as the back, legs, arms, and face. However, it can also develop in areas not typically exposed to sunlight, like the soles of the feet, palms, and under the nails. The ABCDE rule is often used for melanoma detection:

- A (Asymmetry): One half of the mole does not match the other.
- B (Border): Edges are irregular, ragged, notched, or blurred.
- C (Color): The color is not uniform and may include different shades of brown or black, or sometimes patches of pink, red, white, or blue.
- D (Diameter): The mole is larger than 6mm (about the size of a pencil eraser), although melanomas can be smaller.
- E (Evolving): The mole changes in size, shape, color, or elevation, or a new symptom such as bleeding, itching, or crusting develops.

Longevity Screener

Longevity Screener analyzes your DNA and biometric data to holistically determine your risk of developing serious medical conditions.

Your lifetime risk is Normal

Your 10-year risk is Normal

Summary or results

Your results are indicating a Normal risk of developing Melanoma in your lifetime and within the next decade.

Monitor your risk by regularly checking your related labs and implementing the recommendations provided.

What to do if you get a High risk

Analyze your labs

Analyze your lab results to establish a baseline and track any changes or improvements in your health markers over time.

Find out your out-of-optimal labs

We will pinpoint any values that fall outside the optimal range, allowing you to focus on what matters most.

Optimize labs

Aim to bring all your lab results to optimal levels through lifestyle changes, treatments, and ongoing monitoring for the best health outcomes.

Disclaimer

The Longevity Screener feature is designed to provide insights based on genetic predispositions and basic health data to help you understand factors that may influence your longevity. This tool is for informational purposes only and does not constitute medical advice, diagnosis, or treatment. Always consult with a qualified healthcare provider before making any decisions related to your health, lifestyle, or medical treatments. The information provided by the Longevity Screener is based on current scientific research and should be used as a supplementary tool in conjunction with professional medical advice.

Risk Factors and Treatment

Factors that may increase the risk of melanoma include [R]:

- High exposure to UV radiation: Exposure to UV radiation from the sun or tanning beds is the primary risk factor for melanoma.
- Fair skin: melanoma is most common in people with fair skin, hair, and eyes.
- History of sunburns: Severe, blistering sunburns, particularly in childhood, increase the risk.
- Multiple atypical moles: Having a large number of moles or atypical (dysplastic) moles increases the risk.
- Weakened immune system: Individuals with weakened immune systems, such as those who have had organ transplants, are at higher risk.
- Living closer to the Earth's equator or at high elevation
- Family history

Treatment options vary depending on the stage and may include [R]:

- Surgery: The primary treatment for early-stage melanoma, which involves removing the tumor along with a margin of healthy tissue.
- Lymph node dissection: If the melanoma has spread to nearby lymph nodes, these may be surgically removed.
- Immunotherapy: Drugs like pembrolizumab (Keytruda) or nivolumab (Opdivo) boost the body's immune system to fight the cancer.
- Targeted therapy: For melanomas with specific genetic mutations, drugs that target those mutations (e.g., BRAF inhibitors like vemurafenib) can be effective.
- Radiation therapy: May be used in cases where surgery is not possible or if the melanoma has spread.
- Chemotherapy: Less commonly used for melanoma, but may be considered in certain advanced cases.

The prognosis for melanoma depends on the stage at diagnosis. Early-stage melanomas that are detected and treated before they spread have a very high cure rate. However, once melanoma has spread to other parts of the body, it becomes more challenging to treat. Advances in immunotherapy and targeted therapy have improved outcomes for many patients with advanced melanoma.

TYPICAL LIKELIHOOD

Typical likelihood of melanoma based on 1,049,396 genetic variants we looked at

76th

PERCENTILE

Your risk is **greater than 76% of the population** and **lower than 24% of the population.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SLC45A2	rs35407	GG
TERT	rs139996880	GA
TYR	rs1393350	AG
FLACC1	rs13016963	AG
MX2	rs45430	TC
CCND1	rs498136	CA
AGR2	rs1636744	CT
LINC02218	rs187843643	CC
ASIP	rs910873	GG
SPATA2L	rs258322	GG
ASIP	rs1885120	GG
MC1R	rs1805007	CC
ASIP	rs6059655	GG
DBNDD1	rs4785763	CC
IRF4	rs62389423	GG
SLK	rs2995264	AA
IRX3	rs16953002	GG
CTSS	rs7412746	CC
/	rs10739221	CC
SOX4	rs6914598	TT
CYP1B1	rs6750047	GG

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

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.

Your Recommendations

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	Avoid Excess Sunlight Exposure	
2	Methylfolate	400 mcg
3	Aerobic Exercise (Cardio)	1 hour
4	Avoid Secondhand Smoke	
5	Omega-3 (Fish Oil)	2000 mg
6	Mediterranean Diet	
7	Avoid Herbicide Exposure	
8	Maintain Optimal Vitamin D Levels	1000 iu
9	Avoid Volatile Organic Compounds Exposure	
10	Avoid Sugary Foods & Drinks	
11	Avoid Pesticide Exposure	
12	Coenzyme Q10 (CoQ10)	100 mg
13	Limit Calorie Intake	
14	Chlorophyll	100 mg
15	Wheat Germ	20 g
16	Avoid PCBs	

1

Avoid Excess Sunlight Exposure

IMPACT 5 / 5

EVIDENCE 5 / 5

How to implement

Limit direct sun exposure to early morning or late afternoon hours, ideally before 10 a.m. or after 4 p.m., when UV rays are less intense. Wear protective clothing, such as long-sleeved shirts, pants, and wide-brimmed hats, along with sunglasses that block UVA and UVB rays. Apply a broad-spectrum sunscreen with at least SPF 30 to all exposed skin, reapplying every two hours or immediately after swimming or sweating.

Description

Avoiding excessive sunlight exposure and practicing sun safety measures, such as wearing sunscreen and protective clothing, helps reduce the risk of skin damage, including sunburn and skin cancer. It supports long-term skin health and minimizes the harmful effects of UV radiation.

Sunlight or bright light during the day can benefit your body and mind. It may [R, R, R]:

- Boost your mood
- Boost your performance and energy
- Improve sleep quality

Experts recommend getting **at least 5-15 minutes of midday sun, 2-3 times per week**. People with darker skin and those living at high latitudes may need longer periods of sun exposure [R, R].

However, **excessive sun exposure may lead to sunburn, skin aging, and skin cancer**, so make sure to find the right balance [R, R].

How it helps

Experts agree that excessive, unprotected exposure to UV radiation from both the sun and artificial sources (tanning beds and sun lamps) is by far the main risk factor for the development of melanoma [R, R, R, R].

In line with this, a history of sunburns has been associated with an increased risk of melanoma [R, R].

People with low levels of the protective pigment melanin may be at increased risk. This includes people who have fair skin, blue or green eyes, and blond or red hair [R, R, R].

Interestingly, the use of sunscreen hasn't been associated with a reduced risk of melanoma. This may be because people misuse it to further increase their sunlight exposure [R, R, R, R, R, R].

Pilots and cabin crew are exposed to much higher levels of UV radiation. In line with this, they have higher rates of melanoma [R, R, R].

2

Methylfolate

IMPACT 4 / 5

EVIDENCE 3 / 5

How to implement

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

Description

Folate, a B-vitamin, is crucial for DNA synthesis, cell growth, and the formation of red blood cells. Adequate folate intake supports overall health and reduces the risk of neural tube defects during pregnancy.

Vitamin B9 (*folate*) plays an essential role in [R, R, R]:

- Making DNA
- Metabolism
- Energy production

SelfDecode recommends L-methylfolate as the preferred folate supplement for those who need one. It is superior to folic acid because it doesn't require activation, but the research is still ongoing [R, R].

How it helps

A meta-analysis indicated that folate may reduce the risk of melanoma. However, supplementation showed no significant effect on total cancer incidence, colorectal, prostate, lung, breast, or hematological malignancy. Associations with lipid-lowering drugs and hypertension were noted [R].

3 Aerobic Exercise (Cardio)

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

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

Description

Engaging in regular aerobic exercise, such as running, swimming, or cycling, offers numerous health benefits, including improved cardiovascular fitness, weight management, and mood enhancement. It supports overall physical and mental well-being while reducing the risk of chronic diseases.

Cardio, short for cardiovascular exercise, is any type of physical activity that temporarily increases your heart rate. Examples include **running, cycling, swimming, and brisk walking**.

Regular cardio exercise has many benefits for your overall health. It can help lower your risk of heart disease and diabetes, support weight loss, and improve your mood and energy levels. To get the most out of cardio, try to do it for at **least 30 minutes, 3-5 times a week**.

Interval training is a type of cardio that combines periods of high-intensity training with brief rest periods.

How it helps

Regular physical activity can improve overall health and may help lower the risk of cancer recurrence.

4 Avoid Secondhand Smoke

IMPACT 3 / 5

EVIDENCE 2 / 5

How to implement

Implementing a smoke-free lifestyle involves communicating your needs to family, friends, and coworkers, requesting they respect your choice by smoking away from you. At home, establish strict no-smoking policies indoors. When out, choose smoke-free venues and accommodations. Advocate for smoke-free environments in your community and support legislation that promotes public health by reducing exposure to secondhand smoke. Utilize air purifiers at home to reduce any residual particles.

Description

Avoiding secondhand smoke is crucial for maintaining good health. Exposure to secondhand smoke can lead to respiratory problems, cardiovascular disease, and an increased risk of lung cancer, even in non-smokers. Protecting oneself from secondhand smoke involves staying away from smoking areas, ensuring smoke-free environments at home and work, and advocating for smoke-free policies in public spaces.

How it helps

Smoking introduces harmful chemicals into the body that can increase the risk and aggressiveness of melanoma.

5

Omega-3 (Fish Oil)

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Take 1-2 g of omega-3 (fish oil) supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

2000 mg

Description

Omega-3 fatty acids are essential fats found in fatty fish like salmon, flaxseeds, and walnuts. They are known for their potential cardiovascular and brain health benefits, including reducing the risk of heart disease and supporting cognitive function.

Omega-3 fatty acids are some of the healthiest fats we can eat. They help lower inflammation and protect the heart, brain, and eyes. Our bodies produce less omega-3s than we need for optimal health, so it's important to get enough through food or supplements [R, R, R].

There are three major types of omega-3s: ALA, EPA, and DHA [R, R].

Fatty fish are rich in EPA and DHA. They include [R]:

- Salmon
- Tuna
- Herring
- Sardines

For optimal protection, try to get at least **two servings of fatty fish per week.** Fish oil supplements are available for those who don't eat fish regularly [R].

How it helps

Consumption of high omega-3 amounts may decrease the risk of melanoma by approximately half [R].

6

Mediterranean Diet

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

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.

Description

The Mediterranean diet is based on the traditional cuisine from the Mediterranean regions. It moderates the intake of red meat and dairy, while being rich in fruits and vegetables, whole grains, and healthy fats (olive oil).

The Mediterranean diet focuses on traditional cuisine from the Mediterranean regions. It's rich in [R]:

- Olive oil
- Fruits and vegetables
- Whole grains
- Nuts and seeds
- Fish

This type of diet may **reduce inflammation and protect the brain and heart** [R, R, R, R].

Limited intake of animal products, saturated fat, and refined sugar likely contribute to the health benefits of the Mediterranean diet [R].

How it helps

Adherence to a Mediterranean diet may reduce the risk of melanoma [R, R].

Components of this diet associated with a decreased risk include [R, R]:

- Fruits
- Vegetables
- Legumes
- Fish
- Olive oil
- Garlic

Importantly, citrus fruits may increase the risk in people highly exposed to UV radiation. This may be because **citrus fruits are rich in psoralen, a compound that sensitizes the skin against UV radiation** [R, R, R, R, R].

7

Avoid Herbicide Exposure

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Minimize your contact with herbicides by wearing protective clothing such as gloves and masks when handling these chemicals. Choose organic produce when possible to reduce herbicide intake from food sources. Additionally, avoid areas where herbicides are being sprayed and use natural weed control methods in your own garden.

Description

Avoiding exposure to herbicides and pesticides can reduce the risk of potential health concerns associated with these chemicals, such as adverse effects on the nervous system and long-term environmental impacts.

How it helps

Exposure to herbicides increases the risk of melanoma by 85% according to a meta-analysis of 9 studies and 184,389 participants [R].

8

Maintain Optimal Vitamin D Levels

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

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

Description

Vitamin D, often referred to as the "sunshine vitamin," can be synthesized by the skin when exposed to sunlight, as well as being found in fish, eggs, and fortified milk. It helps regulate calcium absorption, promoting strong bones and a healthy immune system. Vitamin D deficiency can lead to conditions like rickets in children and osteoporosis in adults.

Your body needs vitamin D for strong bones. Vitamin D also plays a role in [R]:

- Mood
- Immunity
- Heart health
- Blood sugar control

Sunlight is our main source of vitamin D. Experts recommend getting at least **5-15 minutes of midday sun, 2-3 times per week**. People with darker skin and those living at high latitudes may need longer periods of sun exposure [R, R].

Foods like fish, eggs, and fortified milk provide small amounts of vitamin D. **People lacking vitamin D should consider taking a supplement** [R].

How it helps

The association of vitamin D with melanoma is unclear because it gets confounded with sun exposure [R, R].

However, the prevalence of vitamin D deficiency is higher in melanoma patients [R].

In a placebo-controlled trial of over 36k women, supplementation with vitamin D (400 IU/day) and calcium for a mean of 7 years reduced the incidence of melanoma by over half in those with a history of other skin cancer types [R].

9

Avoid Volatile Organic Compounds Exposure

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Increase ventilation in your living and working spaces by opening windows or using air purifiers with activated carbon filters. Choose low-VOC or VOC-free paints, building materials, and household products. Limit the use of aerosol sprays, solvent-based cleaners, air fresheners, and scented candles. When possible, store products containing VOCs outside of living spaces, and always follow label instructions for proper use and ventilation.

Description

Reducing VOC exposure involves minimizing contact with indoor air pollutants from sources like paints, cleaning products, and certain building materials, which can help prevent respiratory problems and maintain indoor air quality.

How it helps

A meta-analysis of 36 studies found that workers in the oil/petroleum industry have a 23% higher risk of melanoma, while both oil/petroleum and chemical industry workers had higher melanoma mortality [R].

10

Avoid Sugary Foods & Drinks

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

To avoid sugary foods, eliminate or significantly reduce consumption of foods and beverages high in added sugars such as sodas, candies, baked goods, and sugary cereals from your diet. Instead, opt for natural sugar sources like fruits. Aim to do this daily for ongoing health benefits.

Description

High-sugar foods like baked goods, sweets, and sugary drinks, can spike your blood sugar levels. Consuming a lot of these types of foods can contribute to to health issues like diabetes, obesity, insomnia, and heart disease.

High-sugar foods and refined carbs have a high glycemic index (GI). This means they tend to spike your blood sugar levels. They include [R, R, R]:

- Sugary drinks
- Baked goods
- Sweets
- White bread
- White rice
- Pasta

Eating a lot of sugary foods can contribute to:

- Diabetes [R, R, R]
- Weight gain and obesity [R, R]
- Insomnia [R]
- Heart disease [R]

You may also want to avoid processed sugars and sugary drinks. They may have a role in increasing IL-1B [R, R].

How it helps

A study of over 1000 people associated the intake of high-glycemic-load foods with a 138% increased incidence of melanoma in women. When comparing food groups, cereals increased the risk by 32%, sweets by 22%, and chocolate and candy bars by 51% in both men and women [R, R].

In contrast, a study of 118 participants found that consumption of fiber decreased the risk 3 times [R].

11

Avoid Pesticide Exposure

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Purchase organic produce when possible, wash fruits and vegetables thoroughly under running water, and peel them if not organic. Use natural pest control methods instead of chemical pesticides at home and garden. Limit the use of non-organic lawn and garden chemicals.

Description

Pesticides include all chemicals used to kill weeds, insects, fungi, and microbes. Reducing pesticide exposure involves choosing organic or pesticide-free foods and using natural pest control methods to limit contact with potentially harmful chemical residues. It supports overall health by reducing the risk of pesticide-related health issues.

Pesticides include all chemicals used to kill weeds, insects, fungi, and microbes. They are widely used in agriculture to improve crop yields. Common groups of pesticides include:

- Organophosphates (glyphosate, parathion, malathion, chlorpyrifos, diazinon, phosmet)
- Neonicotinoids (imidacloprid, acetamiprid, thiacloprid, clothianidin)
- Pyrethroids (permethrin, alpha-cypermethrin)

Chronic exposure to pesticides has been linked to:

- Fertility problems [R]
- Cognitive problems [R]
- Alzheimer’s and Parkinson’s disease [R, R]
- Thyroid problems [R]
- Obesity [R]
- DNA damage and cancer [R, R, R]

How it helps

Nine studies involving 184,389 subjects found increased risks of cutaneous melanoma (CM) associated with herbicide exposure (1.85x), while insecticides showed no significant risk. Further research is needed for confirmation [R].

12

Coenzyme Q10 (CoQ10)

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Take a 100 mg Coenzyme Q10 (CoQ10) supplement once daily with a meal that contains fat for better absorption.

TYPICAL STARTING DOSE

100 mg

Description

Coenzyme Q10 (CoQ10) is a naturally occurring antioxidant that plays a crucial role in cellular energy production. It is often taken as a supplement to support heart health, improve energy levels, and provide antioxidant protection, especially for individuals with certain medical conditions or as they age.

Coenzyme Q10 (CoQ10) is a compound that helps enzymes work better. By doing so, CoQ10 helps improve [R, R, R, R]:

- Energy levels
- Antioxidant protection
- Heart health
- Muscle strength
- Blood sugar control

The amount of CoQ10 made by your body decreases as you get older. Luckily, you can also get it from food or supplements. Good sources of CoQ10 include [R, R]:

- Organ meats
- Fatty fish
- Whole grains

How it helps

A study of 117 melanoma patients and 125 healthy controls associated low blood coenzyme Q10 levels with increased melanoma incidence, 7.9-fold higher risk of metastasis, and almost halved metastasis-free interval duration [R].

In a small trial of 32 patients with early-stage melanoma, supplementation with coenzyme Q10 (400 mg/day) as an add-on to interferon for 3 years reduced recurrence rates without causing major adverse effects [R].

13

Limit Calorie Intake

IMPACT 1 / 5

EVIDENCE 3 / 5

How to implement

Consume fewer calories than your body needs for maintenance. Calculate your daily caloric needs using an online calculator based on your sex, age, weight, height, and activity level, then reduce that number by 500-1000 calories per day to safely lose 1-2 pounds per week. Adjust the caloric intake as needed based on your progress.

Description

People often limit their calorie intake to help them lose weight [R, R].
However, moderate calorie restriction may also help you stay healthier and age better [R, R, R, R, R].

There are different ways to take in fewer calories. You can:

- **Eat low-calorie foods**, such as those rich in proteins, fiber, and water. Avoid fatty and sugary foods, which tend to be high in calories [R].
- **Try intermittent fasting**, which involves changing how often you eat [R].

If you are restricting your calories, make sure your diet remains healthy and balanced. Experts also recommend being physically active, to prevent the loss of muscle and bone mass.

How it helps

A meta-analysis of 21 studies and 10,802 participants found that being overweight or obese increases the risk of malignant melanoma in men by 31%, while it has no effect in women [R].

However, a Mendelian randomization study found no causal association between high BMI and melanoma [R].

Calorie reduction through strategies like intermittent fasting is crucial to prevent excess weight.

14

Chlorophyll

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take chlorophyll supplements once daily, with a dose ranging from 100 to 300 milligrams. Consume it with a glass of water, preferably in the morning to coincide with your digestive cycle. It's advisable to continue this regimen daily for at least 3 to 4 weeks to assess its benefits.

TYPICAL STARTING DOSE

100 mg

Description

Chlorophyll is a pigment found in plants that may have antioxidant and anti-inflammatory properties. Some proponents suggest that consuming chlorophyll supplements or chlorophyll-rich foods may support detoxification and overall health

How it helps

Fourteen patients with skin metastases from melanoma received PDT with chlorin e(6). All tumors showed complete regression without recurrence. No photodermatitis or significant adverse effects were observed. PDT with chlorin e(6) is effective and well-tolerated for melanoma skin metastases [R].

15

Wheat Germ

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 2 tablespoons (about 20 grams) of wheat germ daily. It can be sprinkled over yogurt, cereal, or smoothies. Consume consistently for at least 4 weeks to notice potential health benefits.

TYPICAL STARTING DOSE

20 g

Description

Wheat germ is a nutrient-rich byproduct of wheat processing. It is a good source of protein, fiber, vitamins and minerals.

Wheat germ can be added to a variety of foods such as smoothies, yogurt, oatmeal, or bread dough to boost their nutritional value. Some people also take it as a supplement.

How it helps

Fermented wheat germ extract (8.5 g daily for up to 12 months) increased progression-free survival by 26 months and overall survival by 22 months in a non-placebo-controlled trial of 52 high-risk melanoma patients [R].

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Avoid PCBs

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How to implement

To avoid PCBs (Polychlorinated Biphenyls), do not use old electrical equipment manufactured before 1977, avoid consuming fish from contaminated waters, especially larger species such as shark and swordfish which are higher in the food chain, and check for and properly dispose of any old fluorescent lighting fixtures that may contain PCBs. Pay attention to local advisories regarding the safety of locally caught fish and wildlife.

Description

PCBs are toxic chemicals that can cause cancer, reproductive problems, and developmental problems. Avoiding exposure to PCBs is important for protecting your health.

Polychlorinated biphenyls (PCBs) are man-made chemicals. They were used in the industry until their **ban in 1979**. PCBs are considered **persistent organic pollutants** (POPS) due to their slow degradation in the environment. They may also **accumulate** in the food chain and the human body [R, R].

We may be exposed to PCBs through contaminated [R, R]:

- **Food** (e.g., fish, meat, rice)
- Soil
- Air

PCBs may have toxic effects on [R, R]:

- Immunity
- Nervous system
- Reproductive system
- Hormone levels

They may also increase the risk of cancer and reduce lifespan [R, R].

How it helps

A meta-analysis of 11 cohort studies on PCB exposure among workers found a weak association with melanoma (SMR 1.32) but no significant link with NHL (SMR 0.94). Population-based studies showed a potential melanoma risk (OR 6.0), while PCB concentration in blood or fat correlated with NHL (OR 1.5). Studies on PCB-contaminated rice oil had mixed results. Overall, the evidence for PCBs increasing melanoma and NHL risk in humans is not strong [R].

This meta-analysis examined 12 populations and found no significant association between exposure to polychlorinated biphenyls (PCBs) and malignant melanoma (MM) risk. The quality of studies and exposure methods had no impact [R].

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 lab results

Your lab results are impacted by the combined effect of your genes, environment and lifestyle.

Lab tests will give you the best picture of your current health status, while your genes provide insight into your health predispositions and which recommendations are best for you.