SelfDecode™

Vitiligo

Disease Report

REPORT CATEGORY

INFLAMMATION & AUTOIMMUNITY

Sample Client

Report date: 15 January 2026

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Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

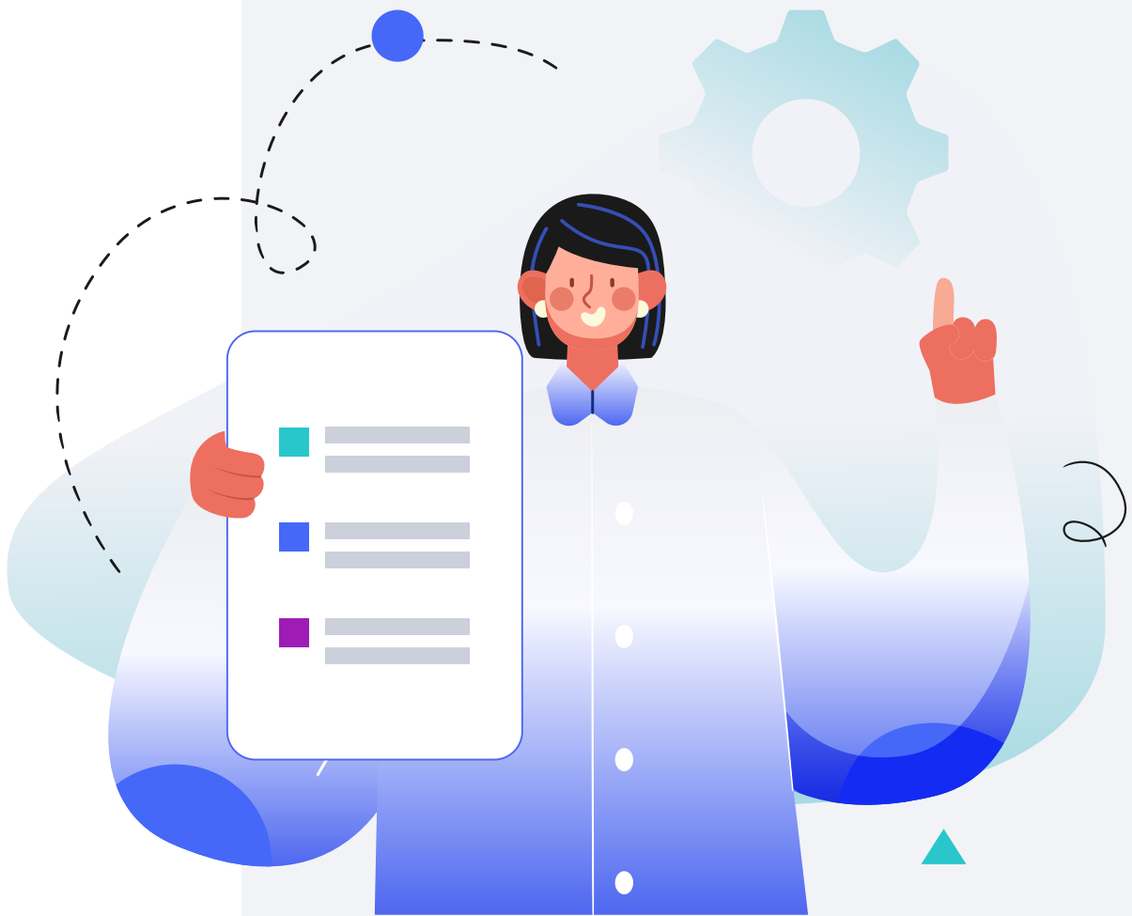
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

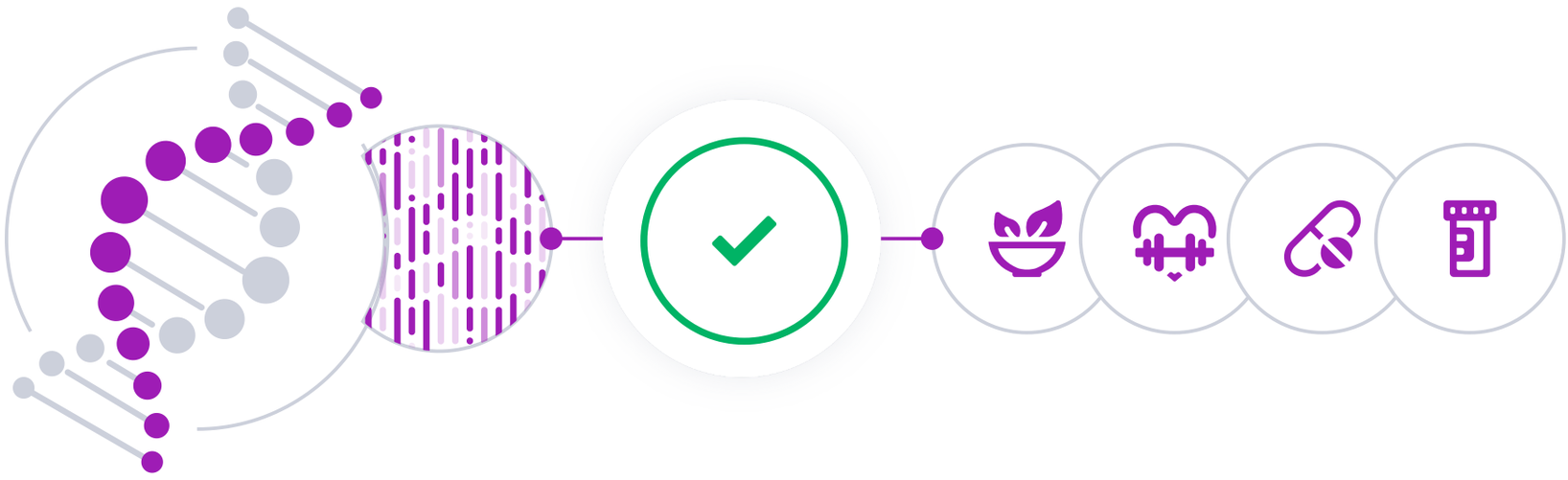


DISCLAIMER

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

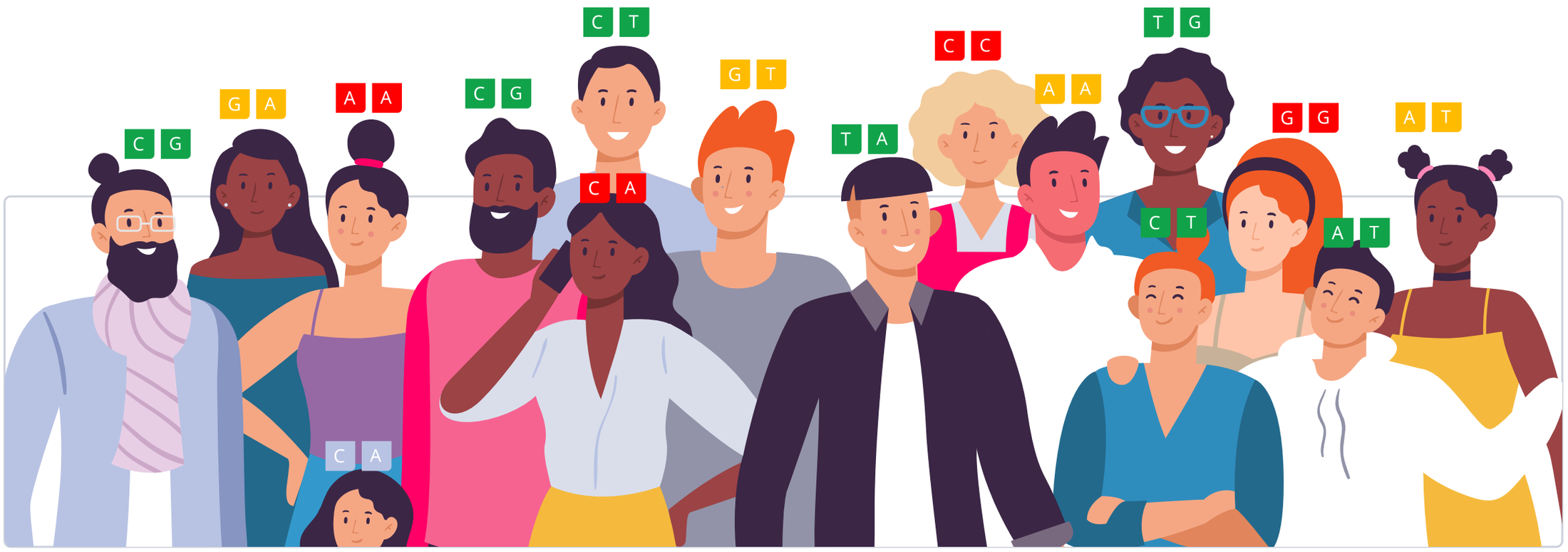
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

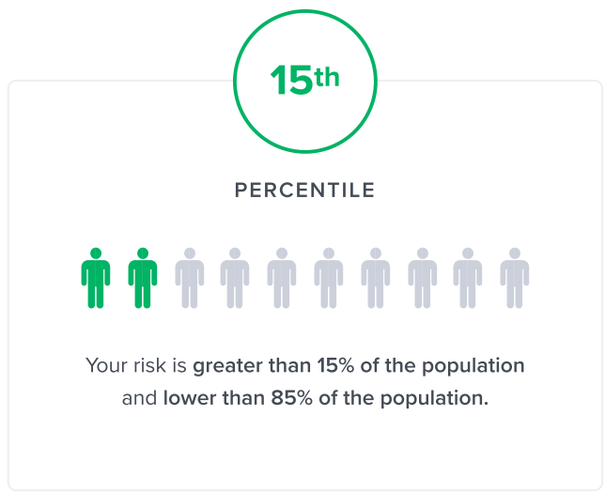
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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

Vitiligo is a condition in which smooth white patches occur on the skin [R].

Although vitiligo has gained more attention thanks to celebrities like Winnie Harlow and Michael Jackson, this condition remains poorly understood. Vitiligo affects around 70 million people worldwide [R].

The distinctive smooth white patches of vitiligo are areas of the skin where pigmentation has been lost. Skin pigmentation, or color of your skin, is given by melanin [R]. Melanin also gives color to your hair and eyes!

A common misconception of vitiligo is that it only affects those with darker skin, but it actually affects all skin types. **Depigmentation is generally linked to 1 of 3 factors: autoimmunity, a trigger event like sunburn, or family history** [R].

While a family history of vitiligo may increase your likelihood of the condition, your DNA may also contribute to the risk from the other two main factors.

For example, a particular variant of the ***VDR*** gene is linked to an increased risk of vitamin D deficiency and vitiligo. Vitamin D helps balance the immune system, so a lack of it may increase your risk of autoimmunity-triggered depigmentation [R].

While a lot of people don’t fully understand vitiligo, one thing is clear: this condition and your DNA are closely linked.

Read on to find out more about:

- **How your genetics play a role in vitiligo**
- **Your genetic risk score based on over 500K genetic variants**
- **Personalized recommendations based on your genetics**

About Vitiligo

Key Takeaways:

- Up to **80%** of differences in people's chances of developing vitiligo may be due to genetics, and many will see it develop before adulthood.
- About **1%** of the world's population has vitiligo, so even if you have a high genetic risk, the actual risk is still low.
- A high genetic risk may make vitiligo triggers such as an autoimmune response or a sunburn, more likely to trigger the condition.
- Click the **Recommendations** tab for potential dietary and lifestyle changes, and **next steps** for relevant labs.

Vitiligo is a condition in which the skin loses pigment. Normally, special skin cells called melanocytes produce a pigment called *melanin*. This pigment helps give the skin, hair, and eyes their color. In vitiligo, these skin cells are damaged or die off [R, R].

In the skin, pigment is often lost in patches. In 90% of cases, these patches appear on both sides of the body, in a symmetrical pattern. For example, if a white patch appears around the left eye, it will also appear around the right eye [R, R].

Vitiligo mostly affects the skin. However, it can also make hair go gray prematurely [R].

About 1% of people worldwide develop vitiligo. Anyone can get it, but it is more noticeable in people with darker skin [R, R].

The cause of vitiligo is unclear. It may happen due to [R, R, R]:

- An autoimmune condition
- A trigger event (e.g., stress, skin injury, severe sunburn, chemical contact)
- **Genetics**

Possible complications of this condition include [R, R]:

- Stress
- Sunburn

TYPICAL LIKELIHOOD

Typical likelihood of vitiligo based on 512,077 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
ASIP	rs6059655	GG
HLA-A	rs60131261	GG
DEF8	rs4268748	TT
/	rs148136154	CC
TEF	rs9611565	TT
IRF4	rs12203592	CC
SERPINB1	rs78521699	AA
RNASET2	rs2247314	TT
FARP2	rs41342147	GG
TICAM1	rs4807000	AA
PTPRC	rs16843742	TT
HLA-DQA2	rs9271597	AT
TYR	rs1126809	AG
SESN3	rs11021232	TC
IL2RA	rs706779	TC
FAP	rs2111485	GA
SH2B3	rs10774624	GA
GZMB	rs8192917	TC
FOXP1	rs34346645	CA
CASP7	rs12771452	AG
RERE	rs301807	AG
TG	rs2687812	AT
ARID5B	rs71508903	CT
CPVL	rs117744081	AA
IL1RAPL1	rs73456411	G
CFAP36	rs10200159	TT
PTPN22	rs2476601	GG
HERC2	rs1635168	CC
UBASH3A	rs12482904	TT
SUOX	rs2017445	TG
TNFSF18	rs78037977	AA
C1QTNF6	rs229527	CC

- Eye problems
- Hearing loss

Treatment options for vitiligo include [R]:

- Medication
- Light therapy
- Surgery

Up to 80% of differences in people's chances of developing vitiligo may be attributed to genetics. Genes involved in vitiligo may influence [R, R]:

- The immune response (*HLA-DQB1*, *HLA-DQA1*, *PTPN22*)
- Skin pigmentation (*FGFR1OP*, *ZMIZ1*, *OCA2*)
- Cell death (*GZMB*, *SLC29A3*, *CASP7*)

GENE	SNP	GENOTYPE
LPP	rs13076312	CC
BACH2	rs72928038	GG
CD44	rs1043101	AA
RAB5C	rs11079035	GG
PIGN	rs8083511	AA
FADS1	rs968567	CC
IRF3	rs2304206	AA

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

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	Light Therapy for Skin	30 minutes
2	Avoid Contact Triggers	
3	Maintain Optimal Vitamin D Levels	1000 iu
4	L-Phenylalanine	
5	Copper	2 mg
6	Vitamin B12	100 mcg
7	Relaxation Techniques	30 minutes
8	B Vitamins	
9	Polypodium leucotomos	240 mg
10	Khellin	50 mg
11	Ginkgo	120 mg
12	Microneedling	
13	Alpha-Lipoic Acid	100 mg
14	Black Pepper	5 mg
15	Turmeric	
16	Milk Thistle (Silymarin)	300 mg
17	Zinc	10 mg
18	Dietary Antioxidants	
19	Low-Fat Diet	
20	Psychotherapy	1 hour
21	Dietary Folate	
22	Acceptance and Commitment Therapy (ACT)	

1

Light Therapy for Skin

IMPACT 5 / 5

EVIDENCE 4 / 5

How to implement

Sit in front of a light therapy box that emits a bright light (without UV rays) for about 20 to 30 minutes daily, preferably in the morning. Make sure the light is indirectly entering your eyes, as direct exposure can be harmful. Consistently use light therapy daily over several weeks to notice improvements in skin conditions.

TYPICAL STARTING DOSE

30 minutes

Description

Light therapy, such as phototherapy or laser treatments, can be effective for various skin conditions like psoriasis and acne by reducing inflammation, promoting skin cell turnover, and improving overall skin appearance.

Light therapy involves shining different types of light on the skin. Doctors prescribe light therapy to help with certain skin conditions, including [R, R, R, R]:

- Psoriasis
- Eczema
- Acne
- Stretch marks

Different types of light can be used for skin, including [R, R, R]:

- UV light
- Blue light
- Red light
- Laser therapy

How it helps

Experts recommend light therapy for treatment of vitiligo. Your doctor may prescribe different types of light therapy based on the specifics of your condition. It may take a few months of regular treatments to start seeing results [R, R, R].

Light therapy helps by increasing skin pigmentation. It may help alone or in combination with medication [R, R, R, R].

Please note: *Light therapy may damage skin and increase signs of aging. UV light may increase the risk of skin cancer, especially in combination with certain medications. Consult your doctor before trying any light therapy* [R, R, R].

2

Avoid Contact Triggers

IMPACT 4 / 5

EVIDENCE 4 / 5

How to implement

Identify substances or materials that irritate your skin or exacerbate your condition and consistently avoid direct contact with them. This may involve wearing protective clothing or gloves, changing household cleaners or detergents to hypoallergenic options, and carefully reading labels on cosmetics and skin care products to ensure they do not contain irritants specific to your sensitivity.

Description

Identifying and avoiding contact triggers, such as allergens or irritants, can help individuals manage allergies or sensitive skin conditions more effectively, reducing symptoms and improving overall quality of life.

A "trigger" is something that prompts or worsens the symptoms of a health condition.

A contact trigger can be something you touch or inhale. It can include anything from your own sweat to dust in the air [R].

A physical trigger can be anything you come into physical contact with that causes a change to your body. It can include anything from swimming in cold water to wearing tight clothing [R, R].

In people who are sensitive to them, physical triggers may contribute to vitiligo [R, R].

In fact, **about 1 in 5 people may have at least one contact trigger**. Common triggers may include [R, R, R]:

- Nickel and cobalt (e.g., jewelry)
- Latex (e.g., rubber gloves)
- Fragrances

Contact triggers may cause or worsen symptoms in people with eczema [R, R].

How it helps

Many physical triggers may contribute to vitiligo. These include [R, R, R, R, R, R, R, R]:

- Sunburn
- Skin trauma (such as cuts and tattoos)
- Prolonged friction or pressure from clothing
- Contact with certain chemicals

Experts recommend protecting the skin against physical triggers. Wearing a broad-spectrum, water-resistant sunscreen (SPF 50 or more) is important [R, R, R].

3

Maintain Optimal Vitamin D Levels

IMPACT 3 / 5

EVIDENCE 3 / 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

Vitiligo is linked to low vitamin D levels. This is especially true in people who work indoors [R, R, R].

Vitamin D supplements may help restore normal pigment production and vitamin D levels in people with vitiligo. They may do this by supporting a balanced immune response [R, R, R, R, R].

Please note: *Experts recommend getting 600-800 IU of vitamin D per day. Medical bodies recommend against taking more than 4,000 IU per day* [R].

4

L-Phenylalanine

IMPACT 3 / 5

EVIDENCE 2 / 5

How to implement

Incorporate foods high in l-phenylalanine into your diet daily. This includes lean meats, fish, eggs, dairy products, soy products, and certain nuts and seeds like almonds and pumpkin seeds.

Description

L-phenylalanine is an amino acid used by the body to produce important neurotransmitters and proteins. It plays a role in mood regulation, cognitive function, and overall neurological health.

L-phenylalanine is a building block for proteins, hormones, and chemical messengers. It plays an important role in brain function, thyroid function, and skin health.

L-phenylalanine is found in foods like [R, R, R, R, R, R]:

- Meat
- Nuts
- Wheat
- Soy

It can also be taken as a supplement.

How it helps

Oral L-phenylalanine combined with light therapy may help increase pigmentation in people with vitiligo [R, R, R, R, R].

A topical L-phenylalanine cream may also help when combined with light therapy [R, R].

L-phenylalanine may help by supporting the production of pigment [R, R].

5

Copper

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Take a copper supplement of 2 milligrams (mg) per day with water, preferably with a meal to reduce the risk of stomach upset. This dosage is for general maintenance of copper levels in adults and should not exceed the recommended amount without consulting a healthcare provider.

TYPICAL STARTING DOSE

2 mg

Description

Copper is an essential trace mineral that plays a vital role in various bodily functions, including the formation of red blood cells and the maintenance of healthy connective tissues.

A **copper supplement** of up to 900 micrograms per day can be taken to meet needs not achieved through diet.

Please note: only people who can't maintain healthy copper levels through their diets may need a supplement. Consult your doctor before supplementing.

How it helps

Copper promotes the production of melanin, the pigment that affects skin coloring. Therefore, in the case of vitiligo - a condition marked by lack of skin pigment, copper supplementation could theoretically help in repigmentation.

A meta-analysis of 16 studies with 891 vitiligo patients and 1,682 controls found that those with vitiligo had **significantly lower copper levels** [R].

6

Vitamin B12

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Take a 50 mcg vitamin B12 supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

100 mcg

Description

Vitamin B12 is a water-soluble vitamin primarily found in animal-based foods like meat, fish, and dairy products. It plays a crucial role in maintaining healthy nerve cells, DNA synthesis, and red blood cell formation. Vitamin B12 deficiency can lead to anemia, neurological issues, and fatigue.

Vitamin B12 is important for [R, R]:

- Building DNA
- Nervous system function
- Energy production

You can get vitamin B12 from [R]:

- Animal products (meat, fish, eggs, and dairy)
- Fortified foods
- Supplements

Adults should be getting **2.4 micrograms** of vitamin B12 every day [R].

How it helps

A meta-analysis of 22 studies and 1,448 vitiligo patients associated this condition with lower vitamin B12 and higher homocysteine levels [R].

In a 2-year study of 100 patients with vitiligo, treatment with oral folic acid and vitamin B12 caused clear repigmentation in 52 patients and total repigmentation in 6 of them. Repigmentation was most evident in sun-exposed areas [R].

Similarly, supplementation with folic acid (5 mg, 2x/day) and vitamin B12 (1,000 mcg, 2x/day) combined with narrowband UVB caused repigmentation in 92% of the patients in a non-placebo-controlled trial of 27 vitiligo patients [R].

Vitamin B12 is pivotal for many bodily functions, including cell metabolism and DNA synthesis. Restoring normal levels may help stabilize pigmentation and prevent further depigmentation.

7

Relaxation Techniques

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Incorporate relaxation techniques such as deep breathing exercises, meditation, or yoga into your daily routine. Spend at least 15-30 minutes each day practicing one of these techniques, preferably in a quiet, comfortable space without interruptions.

TYPICAL STARTING DOSE

30 minutes

Description

Relaxation techniques encompass various methods like deep breathing, yoga, meditation, and progressive muscle relaxation, aimed at reducing stress and promoting mental and physical relaxation. Practicing these techniques regularly can help manage stress, improve mental clarity, and enhance overall emotional well-being.

We all get stressed from time to time.

Stress can help you deal with a challenge or avoid danger. However, **it's not healthy to be stressed for a long time** [R, R].

Relaxation techniques such as yoga and meditation can relieve stress in different ways. Most of them focus on breathing and help you get rid of negative thoughts and emotions [R].

People use relaxation techniques to improve conditions like [R, R, R]:

- Anxiety
- Depression
- Chronic pain

Progressive muscle relaxation is another relaxation technique. In this technique, you focus on tensing and relaxing different parts of your body. It is common to start with the toes and slowly work your way up to the neck and head [R, R].

Autogenic training is a relaxation technique that a person may carry out on their own. It uses exercises that take the mind's attention to bodily sensations such as warmth and heaviness [R, R].

How it helps

Stress is linked to higher rates of vitiligo. Stressful life events may trigger vitiligo and worsen symptoms [R, R, R, R, R, R, R].

Stress may contribute to vitiligo by altering the immune response. It may also increase oxidative damage to skin cells [R, R].

Relaxation and coping techniques can help reduce stress. They may also improve the quality of life in people with vitiligo [R, R, R, R, R].

8

B Vitamins

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take a B vitamin complex supplement once daily, preferably with your morning meal to enhance absorption. The supplement should include a range of B vitamins such as B1 (thiamine), B2 (riboflavin), B3 (niacin), B5 (pantothenic acid), B6 (pyridoxine), B7 (biotin), B9 (folate), and B12 (cobalamin). Ensure consistency by taking it at the same time each day.

Description

B vitamins help the body function properly. Two examples are **vitamin B9** (**folate**) and **vitamin B12**. They play essential roles in [R, R, R, R]:

- DNA formation
- Metabolism
- Energy production

You can get these vitamins from [R, R, R, R, R]:

- Animal products
- Green leafy vegetables
- Citrus fruits
- Fortified foods
- Supplements

Adults should be getting **400 micrograms (mcg) of folate** and **2.4 mcg of vitamin B12** every day [R, R].

Folate deficiency is rare but can happen in people that don't eat enough fruits and vegetables. Alcoholics and lactating mothers may also be at an increased risk [R].

Vitamin B12 deficiency often takes years to develop, as the body is able to store large amounts in the liver. Groups that may be at an increased risk include [R, R]:

- Vegans
- Pregnant women
- Older people
- People with gut issues

How it helps

Vitiligo may be linked to lower levels of vitamin B12 [R].

A combination of vitamin B12 and folate may help increase pigmentation. It may work best when combined with sun exposure or light therapy [R, R].

B vitamins may help by supporting skin pigmentation [R, R, R].

9

Polypodium leucotomos

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take an oral supplement of Polypodium Leucotomos extract, typically available in capsule form, at a dosage of 240 to 480 mg daily. This can be consumed either once daily or divided into two doses taken with meals. Continue this regimen daily for skin protection and other potential benefits.

TYPICAL STARTING DOSE

240 mg

Description

Polypodium leucotomos, commonly known as the calaguala fern, is a plant native to Central and South America. where it has a long history of traditional use by indigenous peoples. Its polypodium and phenolic compounds have been utilized in skin care supplements for the past several decades.

Polypodium leucotomos is a species of fern native to South America. Extracts made from the root stalks are used to help with skin conditions [R, R, R].

How it helps

***Polypodium leucotomos* (250-720 mg/day)** added to light therapy may help increase pigmentation and balance the immune response [R, R, R, R].

P. leucotomos may also protect the skin from light damage [R, R, R].

PERSONALIZED TO YOUR GENES

People with your *HLA-DQA1* gene variant may be more prone to vitiligo. This gene plays a role in the immune response. *P. leucotomos* may help balance the immune response [R, R].

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
HLA-DQA2	**rs9271597**	AT	

10

Khellin

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take khellin as a dietary supplement in capsule or tablet form. The typical dosage ranges from 50 to 150 mg per day, divided into two or three doses. It's important to start with a lower dose to assess tolerance, gradually increasing as needed. Consult with a healthcare provider before starting khellin to determine the appropriate dosage for your specific condition.

TYPICAL STARTING DOSE

50 mg

Description

Khellin is a compound found in the herb *Ammi visnaga*. This herb is native to areas around the Mediterranean. People use it to support kidney, lung, and skin health [R].

How it helps

When combined with sun exposure, **oral khellin (100 mg/day for 4 months)** may help increase pigmentation in people with vitiligo [R].

Topical khellin combined with light therapy may have similar benefits [R, R, R, R].

Khellin may help make the skin more sensitive to light. This may support the benefits of sun exposure and light therapy [R, R, R].

Please note: *Khellin may harm the liver. Talk to your doctor before using any products that contain khellin* [R, R].

11

Ginkgo

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take 120 mg of Ginkgo supplement daily, preferably with meals to aid absorption. This dosage is typically split into two 60 mg doses taken in the morning and evening for best results.

TYPICAL STARTING DOSE

120 mg

Description

Ginkgo (*Ginkgo biloba*) is an ancient tree used in traditional Chinese medicine [R, R].

According to limited evidence, ginkgo leaf extract may help with [R, R, R, R]:

- Anxiety
- Dementia
- Eye problems
- Blood vessel problems
- Vitiligo

How it helps

Ginkgo extract (120 mg/day for 3-6 months) may help with vitiligo. It may slow the condition's progression and make it less severe [R, R, R].

Ginkgo may help by [R, R, R]:

- Increasing pigmentation
- Reducing oxidative stress

Please note: ***Do not consume ginkgo seeds or unprocessed ginkgo leaves. They are poisonous.*** *Ginkgo may also interact with blood thinners. Consult your doctor before taking ginkgo supplements* [R, R, R, R].

12

Microneedling

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

To implement microneedling as a lifestyle recommendation for skin rejuvenation or scar treatment, use a dermaroller or microneedling device with needles of 0.2 to 1.0 mm in length, depending on the treatment area and sensitivity of your skin. Gently roll the device over the target area in a criss-cross pattern, ensuring to cover all desired areas, typically once every 2 to 4 weeks. Cleanse the skin and device before and after each use to prevent infection.

Description

Microneedling is a minimally invasive procedure that uses tiny needles to create tiny punctures in the skin. This can help to stimulate collagen production, improve skin texture, and reduce the appearance of scars.

How it helps

A meta-analysis of 8 studies including 331 vitiligo patients found more than 25% repigmentation with microneedling (0.25-2 mm) [R].

13

Alpha-Lipoic Acid

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take 600-1800 mg of alpha-lipoic acid daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

100 mg

Description

Alpha-lipoic acid is a natural antioxidant found in almost every cell in your body. People use alpha-lipoic acid to help with issues like skin aging, weight loss, and high blood sugar [R, R, R].

People use alpha-lipoic acid to help with [R, R, R, R]:

- Complications of high blood sugar
- Skin aging
- Weight loss
- Carpal tunnel syndrome

How it helps

Alpha-lipoic acid may help with vitiligo. It may increase pigmentation when combined with light therapy. However, one study did not find an added benefit of alpha-lipoic acid [R, R, R, R].

Alpha-lipoic acid may help by reducing oxidative stress [R, R].

14

Black Pepper

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a black pepper supplement in the form of capsules, commonly available in 5-10 mg doses, once daily with a glass of water, preferably with meals to enhance absorption. Continue as long as needed or recommended by a healthcare professional.

TYPICAL STARTING DOSE

5 mg

Description

Black pepper is a common spice that contains piperine, a compound that may enhance nutrient absorption and provide potential health benefits. It is often used to add flavor to dishes and may support digestive health and overall well-being.

How it helps

In a placebo-controlled trial of 63 patients with facial vitiligo, topical piperine used as an add-on to narrow-band UVB phototherapy every other day for 3 months improved skin repigmentation better than phototherapy alone [R].

Piperine in black pepper may help in the repigmentation of the skin by stimulating the proliferation of pigment-producing cells (melanocytes).

15

Turmeric

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate 500-1000 mg of turmeric into your daily diet, either by adding ground turmeric spice to your food, such as in curries, soups, and smoothies, or by taking a dietary turmeric supplement. This should be done daily for at least 8 weeks to observe potential health benefits.

Description

Turmeric is a bright yellow spice derived from the root of the Curcuma longa plant. It contains curcumin, a potent antioxidant and anti-inflammatory compound. Turmeric is used for various health conditions, including reducing inflammation, alleviating joint pain, and supporting digestive health.

How it helps

Turmeric, a herb known for its anti-inflammatory properties, may not specifically treat vitiligo, but it can help boost your immune system and maintain good health. But there seems to be not enough scientific data to confirm its direct benefit for vitiligo, so it is currently unestablished.

In a placebo-controlled trial of 30 patients with vitiligo, applying turmeric topical cream 2x/day for 4 months **reduced the size of lesions and improved the lesion's appearance** [R].

16

Milk Thistle (Silymarin)

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a 300 mg milk thistle (silymarin) supplement daily with water, preferably with a meal for better absorption.
Continue this regimen as advised by your healthcare provider.

TYPICAL STARTING DOSE

300 mg

Description

Silymarin is a natural plant extract derived from the milk thistle plant (Silybum marianum). It has been traditionally used for its potential anti-inflammatory and liver-protective properties. Silymarin consists of several flavonolignans, including silybin, silydianin, and silychristin.

Milk thistle (*Silybum marianum*) is a purple flowering plant in the daisy family. Traditionally, it has been used for liver problems. Some people also eat the leaves in salads [R, R].

The extract of milk thistle is called *silymarin* [R, R, R].

People use milk thistle to help with [R, R, R]:

- Liver problems
- Blood sugar control
- Indigestion
- Skin problems

How it helps

Milk Thistle (Silymarin) is known for its antioxidant properties that can limit skin cell damage and speed up the repair process. For Vitiligo, it may help in slowing the progression of the disease by reducing oxidative stress, which contributes to the depigmentation process.

In a non-placebo-controlled trial of 34 patients with vitiligo, supplementation with silymarin as an add-on to phototherapy **reduced vitiligo area severity index better than phototherapy alone** [R].

17

Zinc

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take a 15 mg zinc supplement daily, ideally with a meal to enhance absorption.

TYPICAL STARTING DOSE

10 mg

Description

Zinc is an essential mineral found in various foods, including meat, dairy, and nuts. It is crucial for immune function, wound healing, DNA synthesis, and maintaining healthy skin and nails. Zinc supplements are sometimes used to support immune health and manage zinc deficiencies.

Zinc is an essential mineral. Your body needs it to [R, R]:

- Defend against disease
- Protect DNA from damage
- Heal wounds
- Control blood sugar

Some of the best sources of zinc include **shellfish, pork, beef, and beans**. It is also available as a supplement [R].

Adults should get **8-11 mg of zinc** per day [R].

How it helps

Zinc aids in the production of melanin, the pigment that gives your skin its color, which is often deficient in people with vitiligo. So, taking zinc can potentially help stimulate melanin production and improve the skin's appearance.

18

Dietary Antioxidants

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate foods rich in antioxidants, such as fruits (berries, oranges, plums), vegetables (spinach, kale, bell peppers), nuts (walnuts, almonds), and seeds (flaxseeds, chia seeds) into your daily meals. Aim for at least 5 servings of fruits and vegetables per day, ensuring a variety of colors to cover different antioxidants.

Description

Dietary antioxidants are compounds found in foods that help neutralize harmful molecules called free radicals, potentially reducing the risk of oxidative stress-related diseases and supporting overall health. Examples include vitamins C and E, beta-carotene, and polyphenols.

Our cells sometimes produce molecules called **reactive oxygen species (ROS)** [R].

High levels of ROS can cause oxidative stress and damage our cells. Oxidative stress plays a role in many health conditions, including [R]:

- High blood sugar
- Type 2 diabetes
- Heart disease

Antioxidants are substances that help combat ROS [R].

Antioxidants are found in many plants. Good sources include [R, R, R]:

- Fruits like tomatoes, berries, and pomegranates
- Vegetables like onions, spinach, and celery
- Chocolate
- Olive oil
- Wine

How it helps

A diet rich in antioxidants can combat oxidative stress, which is thought to be involved in the development of vitiligo.

19

Low-Fat Diet

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Adopt a diet where less than 30% of your daily calories come from fat. Incorporate plenty of fruits, vegetables, whole grains, and lean proteins. Avoid or significantly limit high-fat foods like fried foods, processed snacks, and fatty meats. Aim for this dietary pattern consistently each day.

Description

Low-fat diets are often recommended for heart health and weight management. They can help reduce the intake of saturated and trans fats, lowering the risk of cardiovascular disease.

A low-fat diet is a diet that provides **30% or less** of the daily energy requirement from fat [R].

This type of diet may be useful for **losing weight, reducing cholesterol levels, and lowering the risk of certain health conditions**, such as [R, R, R, R]:

- Heart disease
- Diabetes
- Certain types of cancer

Low-fat diets prioritize the following foods [R, R]:

- Vegetables and fruits
- Whole grains
- Legumes (e.g., beans, lentils, peas)
- Skinless poultry (e.g., chicken, duck, and turkey)
- Fish and seafood (e.g., salmon, lake trout, tuna, and herring)
- Egg whites
- Low-fat dairy products

How it helps

A low-fat diet helps in managing vitiligo by reducing inflammation in the body, as high-fat foods can increase inflammation which may exacerbate vitiligo symptoms. Furthermore, a low-fat diet promotes good overall health which may assist your body's immune system to function optimally.

20

Psychotherapy

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Schedule and attend regular sessions with a licensed psychotherapist, typically once a week for 50-60 minutes, over a period of several months to years depending on your individual needs and progress. Consistency is key, and the duration can vary widely based on personal goals and the type of psychotherapy being practiced.

TYPICAL STARTING DOSE

1 hour

Description

Psychotherapy is a broad term for therapeutic approaches that address mental and emotional health issues through talking and counseling. It can be used to treat a wide range of psychological and emotional challenges.

Psychotherapy (talk therapy) involves talking about your health with a licensed therapist. It may improve the way you react to certain experiences and help reduce stress [R, R].

Psychotherapy is a great way to improve many conditions, including [R, R, R, R, R, R]:

- Depression
- Anxiety disorders
- PTSD
- OCD
- Weight problems
- Eating disorders

Cognitive-behavioral therapy (CBT) is a type of psychotherapy. CBT aims to change the way you think about your life and yourself. Through CBT, a therapist can help you develop healthy coping mechanisms [R].

How it helps

Psychotherapy, like cognitive-behavioral therapy, helps manage vitiligo by addressing emotional stress and anxiety that can potentially trigger or worsen the condition. While not treating the physical symptoms, it can improve mental well-being and patients' reaction to their appearance, positively impacting overall quality of life.

21

Dietary Folate

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Increase your intake of folate-rich foods such as leafy green vegetables, fruits, nuts, and legumes. Aim to consume these foods daily, incorporating them into various meals throughout the day to meet the recommended dietary allowance of 400 micrograms for adults.

Description

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

- Making DNA
- Metabolism
- Energy production

Rich sources of folate include [R, R]:

- Beef liver
- Spinach
- Black-eyed peas
- Asparagus
- Citrus fruits

While folate deficiency is rare, it can happen in people who don't eat enough fruits and vegetables. Alcoholics and lactating women may also be at increased risk [R].

Adults should get **400 micrograms (mcg)** of folate per day. Pregnant or breastfeeding women should get **500-600 mcg per day**. Supplements are usually in the form of *folic acid* or L-methylfolate (5-MTHF) [R, R].

How it helps

Dietary folate aids in the production and repair of DNA which could potentially affect skin pigmentation, therefore beneficial to vitiligo patients. However, it is not scientifically proven to prevent vitiligo from happening.

Genetically higher folate levels may reduce the risk of (MR):

- Vitiligo. [R]

We found that a higher genetically determined serum folate level per one standard deviation (SD) was **associated with a decreased risk of vitiligo** by the IVW method [odds ratios (OR) = 0.47; 95% confidence interval (CI): 0.32-0.69; P = 1.33 × 10-4].

Please note: *There is no evidence from controlled clinical trials to support this recommendation. It is included based on uncontrolled clinical trials, animal or cell studies, or non-scientific criteria. Please take this recommendation with a grain of salt until more research is available.*

22

Acceptance and Commitment Therapy (ACT)

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Participate in Acceptance and Commitment Therapy (ACT) sessions with a licensed therapist weekly for a minimum of 8 to 12 weeks. During this period, engage in daily ACT exercises at home as recommended by your therapist, such as mindfulness practices and writing exercises that help you connect with your values and accept your thoughts without judgment.

Description

ACT is a type of psychotherapy that focuses on accepting one's thoughts and feelings while committing to actions that align with personal values. It is used to improve mental well-being and treat conditions like anxiety and depression.

How it helps

ACT can help individuals with vitiligo to accept their condition, reduce psychological distress, and improve mental health, potentially mitigating stress-related impacts on the skin.

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.

TSH	2.76 mcIU/mL	0.4 – 1.5 – 2.5 – 4.5	9 Nov 2025
Zinc	17.12 umol/L	7.65 – 9.18 – 12.24 – 19.89	9 Nov 2025
Vitamin B12	687 pg/mL	200 – 400 – 1000 – 1100	9 Nov 2025
Vitamin D, 25-Hydroxy, Total	58.59 ng/mL	10 – 20 – 30 – 75 – 150	9 Nov 2025
Active B12	500 pmol/L	20 – 35 – 134	13 Jan 2026