

Lupus

Disease Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

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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.

Personal information

NAME

Sample Client

SEX AT BIRTH

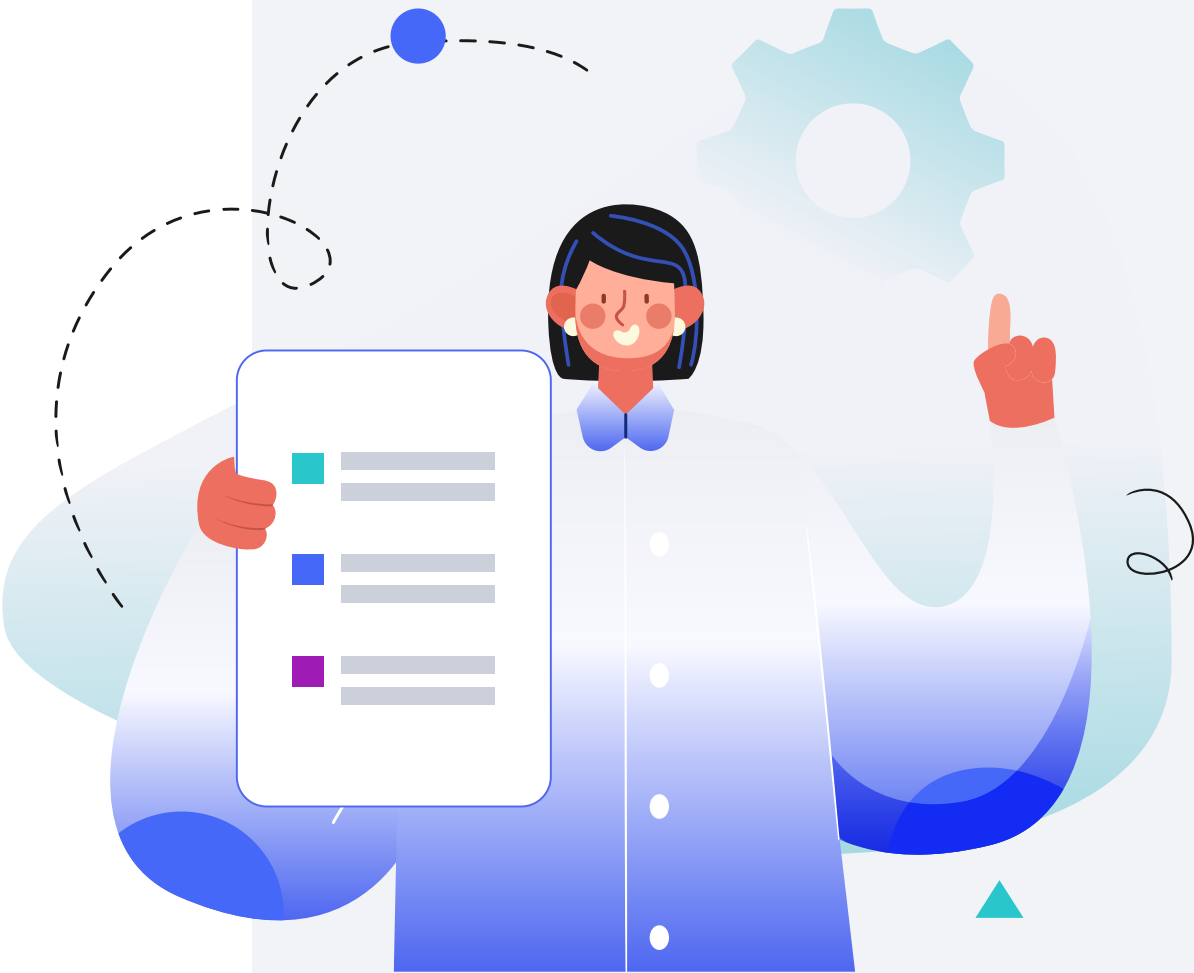
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg



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.

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

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



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, a few 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

Systemic lupus erythematosus (SLE), or just “lupus”, is a chronic autoimmune disorder. In lupus, the immune system can attack any part of the body, including the skin, joints, kidneys, brain, and other organs.

Symptoms of lupus can vary widely and may include [R](#):

- **Butterfly-shaped facial rash**
- Fatigue
- Joint pain and swelling
- Skin rashes with burning/itchy sensation
- Fever
- Chest pain
- Hair loss
- Anemia
- Kidney issues

There is no cure for lupus, and it is typically managed with medications and lifestyle changes. **It's important for people with lupus to work closely with a healthcare team**, including a rheumatologist, to manage their condition and prevent flare-ups.

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 Lupus 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

Key Takeaways:

- Up to **65%** of differences in people's chances of having lupus may be due to genetics.
- Other risk factors include being female, non-white, and young.
- It's often triggered by sunlight, medications, or infections.
- If you have a high genetic risk, being aware of symptoms and living a healthy lifestyle are important factors. Contact a healthcare professional if you develop symptoms.
- Click the **Recommendations** tab for potential dietary and lifestyle changes, and **next steps** for relevant labs.

The main risk factors for lupus include [R,R](#):

- **Sex:** lupus is far more prevalent in women
- **Age:** most new cases are falling in the 15-44 age range
- **Race:** it's 2-3 times less likely in white people
- **Genetics:** Up to **65%** of differences in people's chances of having lupus may be due to genetics

Lupus can be triggered by sunlight, medications, or infections.



TYPICAL LIKELIHOOD

Typical likelihood of lupus based on 1,049,429 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SMG7	rs17849501	CT
STAT4	rs11889341	CT
IRF8	rs11644034	GG
NADSYN1	rs3794060	CC
PRDM1	rs6568431	AA
IKZF1	rs4917014	TT
LYST	rs9782955	CC
ZFP36L1	rs4902562	AA
UBE2L3	rs7444	CT
SLU7	rs2431697	TC
TYK2	rs2304256	AC
TMEM80	rs12802200	AC
DEXI	rs9652601	AG
TASL	rs887369	C
FAP	rs2111485	GA
/	rs11908000	CC
MICB	rs1270942	AA
TNPO3	rs10488631	TT
TNFAIP3	rs6932056	TT
ITGAM	rs34572943	GG
SKP1	rs7726414	CC
PTPN22	rs2476601	GG
TNIP1	rs10036748	CC
IKZF3	rs2941509	CC

GENE	SNP	GENOTYPE
MECP2	rs1734787	A
ZC3H13	rs912784	CC
BLK	rs2736340	CC
PLD2	rs2286672	CC
IKZF2	rs3768792	AA
CD44	rs2732549	GA
TNFSF4	rs704840	TT
BANK1	rs10028805	AA
RPP25	rs2289583	CC
RPP14	rs9311676	TT
IL19	rs3024505	AG
SLC15A4	rs1059312	AA
WDFY4	rs2663052	GG
FCGR2A	rs1801274	AA
DDO	rs9398235	GG
JARID2	rs1267499	CT

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			DOSAGE
1	Maintain Optimal Vitamin D Levels	1000 iu	2	Vitamin B12	10 mcg
3	Avoid Excess Sunlight Exposure		4	Aerobic Exercise (Cardio)	1 hour
5	Strength Training	1 hour	6	DHEA (Dehydroepiandrosterone)	25 mg
7	Omega-3 (Fish Oil)	500 mg	8	Psychotherapy	1 hour
9	EPA (Omega-3)	500 mg	10	Avoid Sugary Foods & Drinks	
11	Cognitive-Behavioral Therapy (CBT)		12	N-acetylcysteine (NAC)	600 mg
13	Avoid Air Pollution		14	Dietary Omega-3 Fatty Acids	
15	Relaxation Techniques	30 minutes	16	Limit Protein Intake	
17	Legumes		18	Mediterranean Diet	
19	Turmeric		20	Green Tea Extract	250 mg
21	Pycnogenol	100 mg	22	Flaxseed	2 tbsp
23	Dietary Zinc		24	Autoimmune Protocol (AIP) Diet	
25	Limit Saturated Fat		26	Green Tea	400 mg
27	Acupuncture	1 hour	28	Tai Chi	1 hour
29	Meditation	30 minutes	30	Aquatic Exercise	1 hour
31	Acceptance and Commitment Therapy (ACT)		32	Limit Copper Intake	

1



Maintain Optimal Vitamin D Levels

IMPACT3 / 5

EVIDENCE4 / 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

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.*

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* [\[R\]](#).

Genetically predicted higher and lower vitamin D levels may be associated with lower and higher risks of psoriasis and lupus respectively. Genetically-predicted vitamin D levels were linked to a lower risk of diseases in the autoinflammation group, such as psoriasis, with a significant reduction in risk. However, no significant association was found in the autoimmunity group or when both groups were combined. When considering specific diseases, psoriasis showed a lower risk associated with vitamin D (OR 0.91). Additionally, a decrease in 25(OH)D3 levels was linked to a 14.2% higher risk of systemic lupus erythematosus (SLE). Low 25OHD levels were associated with a 20% increased risk of incident psoriasis, particularly in obese individuals, while genetically predicted higher 25OHD levels were associated with a 24% decreased risk of psoriasis. However, one analysis found no association with lupus [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Also, a study found that a favorable effect of oral vitamin D supplementation in patients with psoriasis could not be verified. [\[R\]](#).

People with lupus are up to **6.5 times more likely to have low vitamin D levels**. This may be partly because they tend to be sensitive to UV light and thus avoid sun exposure [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

In turn, low vitamin D levels may be linked to increased lupus activity and cardiovascular risk factors [\[R\]](#).

Some people with lupus may benefit from vitamin D supplementation. It may help [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Improve vitamin D status
- Protect the blood vessels
- Reduce disease activity and fatigue
- Reduce inflammation



PERSONALIZED TO YOUR GENES

The [STAT4](#) gene enhances the development of immature T helper cells into [Th1](#) and [Th17](#) cells. Th1 and Th17 cells play a role in different inflammatory and autoimmune conditions, making *STAT4* a crucial genetic factor in lupus development [\[R, R, R\]](#).

Your genotype for [rs11889341](#) correlates with higher rates of lupus. It likely stimulates Th1 and Th17 cells by increasing *STAT4* activity [\[R, R\]](#).

[Vitamin D](#) treatment reduced STAT4 activity and autoimmune [inflammation](#) in animal studies and test tubes [\[R, R\]](#).

>>> *To learn more about the link between the STAT4 gene and lupus, check out the full SelfDecode blog post [here](#).*

The [IKZF1](#) gene reduces [IFN-gamma](#) production. IFN-gamma plays a role in lupus and other autoimmune conditions; lupus patients tend to have higher IFN-gamma levels [\[R, R, R\]](#).

Your genotype for [rs4917014](#) has been associated with higher rates of lupus. It likely increases IFN-gamma levels by suppressing *IKZF1* [\[R, R\]](#).

People with lupus are more prone to [vitamin D](#) deficiency, which is associated with significantly higher IFN-gamma levels [\[R, R, R\]](#).

>>> *To learn more about the link between the IKZF1 gene and lupus, check out the full SelfDecode blog post [here](#).*

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
STAT4	rs11889341	CT	
GENE	SNP	GENOTYPE	EVIDENCE
IKZF1	rs4917014	TT	

2



Vitamin B12

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

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

TYPICAL STARTING DOSE

10 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

Vitamin B12 helps Lupus patients by boosting their energy and reducing fatigue, a common symptom of Lupus. It also supports the health of the nervous system, which can be affected by Lupus.

A [meta-analysis of 50 studies and 4396 patients with lupus](#) found **lower vitamin B12** in these patients [\[R\]](#).

3



Avoid Excess Sunlight Exposure

IMPACT3 / 5

EVIDENCE3 / 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

The skin of people with lupus tends to be more sensitive to UV light. Sun exposure may cause skin lesions and even trigger internal lupus symptoms [\[R\]](#), [\[R\]](#).

Whenever they are in the sun, people with lupus should make sure to protect their skin with **clothes or sunscreen** (SPF 55+) [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

4



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

Experts and researchers encourage people with lupus to get regular exercise. They should first consult their doctor and start with lower-intensity exercise [R, R].

In people with lupus, cardio (practiced for at least 3 months) may improve [R]:

- Fatigue
- Depression
- Fitness

 PERSONALIZED TO YOUR GENES

The [STAT4](#) gene enhances the development of immature T helper cells into [Th1](#) and [Th17](#) cells. Th1 and Th17 cells play a role in different inflammatory and autoimmune conditions, making *STAT4* a crucial genetic factor in lupus development [R, R, R].

Your genotype for [rs11889341](#) correlates with higher rates of lupus. It likely stimulates Th1 and Th17 cells by increasing *STAT4* activity [R, R].

In one clinical study, aerobic [exercise](#) reduced STAT4 activity in lupus patients [R].

>>> To learn more about the link between the *STAT4* gene and lupus, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
STAT4	rs11889341	CT	

5



Strength Training

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

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

Description

Strength training, also called resistance or *anaerobic* training, contracts the muscles against an external resistance for short periods of time. This helps gain muscle strength, tone, and mass. This can include activities like weight lifting, pushups, and crunches.

Strength training, also known as resistance training, is a type of physical exercise that uses resistance to build strength, anaerobic endurance, and size [R]. Some of the most common strength training methods include [R]:

- Weight lifting
- Bodyweight exercises like push-ups, pull-ups, squats, and lunges.
- Resistance bands
- Plyometrics or explosive force exercises

The benefits of strength training are numerous, and include [R]:

- Increased muscle strength
- Improved bone health
- Reduced risk of injury
- Improved balance and coordination
- Enhanced mood
- Boost metabolism

Consult with a doctor before starting any new exercise program, especially if you have any health conditions.

How it helps

Experts and researchers encourage people with lupus to get regular exercise. They should first consult their doctor and start with lower-intensity exercise [R].

In people with lupus, strength training may improve [R]:

- Physical and social functioning
- Pain
- Quality of life

6



DHEA (Dehydroepiandrosterone)

IMPACT3 / 5

EVIDENCE2 / 5

How to implement

Take 25-50 mg of DHEA orally with water daily, preferably in the morning to mimic the body's natural rhythm of DHEA production. It is advisable to start at the lower dose to assess tolerance and adjust as needed. Consult a healthcare provider for personalized advice and before starting a new supplement regimen.

TYPICAL STARTING DOSE

25 mg

Description

DHEA is a hormone produced by the adrenal glands and has been used as a dietary supplement for various purposes, including supporting hormonal balance and energy levels. It may have potential benefits for specific individuals, but its use should be supervised by a healthcare professional due to its hormonal nature.

DHEA is a steroid hormone produced primarily by the adrenal glands. It is also produced to a much lesser extent by the testes and ovaries and, possibly, the brain [\[R, R\]](#).

DHEA helps make the sex hormones [testosterone](#) and [estrogen](#). DHEA is important for [\[R, R, R, R\]](#):

- Mood
- Immunity
- Muscle strength
- Bone health
- Skin health

DHEA is released in response to stress. In fact, one of DHEA's important roles is to protect against the adverse effects of prolonged and excessive exposure to cortisol, the stress hormone [\[R, R, R\]](#).

How it helps

In people with lupus, DHEA supplementation (50-200 mg/day for 3-12 months) may [\[R, R, R, R, R, R, R, R, R, R\]](#):

- Reduce disease severity and flares
- Reduce bone loss from corticosteroids
- Improve quality of life

However, many studies only found temporary benefits on quality of life or no benefits at all. DHEA even worsened blood lipids in some of them [\[R, R, R, R, R\]](#).

According to the Mayo Clinic, adding DHEA to standard lupus treatment may help reduce flares. They warn that DHEA may cause acne in women [\[R\]](#).

Please note: *DHEA has been banned by sport associations and anti-doping agencies. DHEA should not be used at high doses or long-term and is contraindicated in patients with hormone-responsive cancers. DHEA supplements should only be used with the prescription of a medical professional. Discuss risks and side effects with your doctor* [\[R\]](#).

7



Omega-3 (Fish Oil)

IMPACT2 / 5

EVIDENCE3 / 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

500 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

Low levels of omega-3s may raise the risk of lupus [\[R\]](#).

In people with lupus, omega-3 supplementation (3 g/day for at least 3 months) may improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Disease activity
- Fatigue and other symptoms
- Quality of life
- Blood lipids
- Oxidative stress and inflammation

However, some studies didn't find any benefits of omega-3s for lupus [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Please note: *Omega-3s can interact with blood thinners (like aspirin, Plavix, Coumadin). Consult your doctor before supplementing* [\[R\]](#).



PERSONALIZED TO YOUR GENES

The [ITGAM](#) gene helps make one part of Mac-1, a protein that prevents excessive inflammation, tissue damage, and the production of self-targeting antibodies. Mac-1 may have a protective role in lupus by increasing the levels of A20, an immune suppressor [\[R, R, R, R, R, R\]](#).

Your genotype for [rs1143679](#) has been associated with higher rates of lupus. It likely inhibits A20 by reducing ITGAM activity [\[R, R, R\]](#).

[Omega-3](#) fatty acids raised A20 levels in animals and test tubes [\[R, R, R\]](#).

>>> *To learn more about the link between the ITGAM gene and lupus, check out the full SelfDecode blog post [here](#).*

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
ITGAM	rs1143679	AG	

8



Psychotherapy

IMPACT2 / 5

EVIDENCE3 / 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

Unstable mood may play a role in lupus development [\[R\]](#).

In people with lupus, **stress may worsen cognitive functions** like memory and attention. **CBT** and other types of psychotherapy may help reduce [\[R\]](#), [\[R\]](#):

- Disease activity
- Stress
- Anxiety
- Depression

9

EPA (Omega-3)

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Take an EPA (Eicosapentaenoic acid) supplement in the form of fish oil or algae oil capsules, aiming for a dosage of 500-1000 mg per day. This should be taken with a meal to improve absorption, and continuous daily use is recommended for general heart health and to support mental well-being.

TYPICAL STARTING DOSE
500 mg

Description

EPA is an omega-3 fatty acid found in fish oil supplements and fatty fish like salmon. It is known for its anti-inflammatory properties and is associated with cardiovascular health, mood regulation, and 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. **EPA and DHA are vital for cognition and mental health** [\[R\]](#), [\[R\]](#).

The body can produce eicosapentaenoic acid (EPA) from alpha-linolenic acid (ALA), another type of omega-3 fatty acid found in plants. We can also get EPA directly from food sources such as oily fish, shellfish, and algae. EPA helps make DHA. [\[R\]](#), [\[R\]](#), [\[R\]](#).

Please note: *Fish oil can interact with blood thinners (like aspirin, Plavix, Coumadin). Consult your doctor before taking fish oil* [\[R\]](#).

How it helps

Low levels of omega-3s may raise the risk of lupus [\[R\]](#).

In people with lupus, omega-3 supplementation (3 g/day for at least 3 months) may improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Disease activity
- Fatigue and other symptoms
- Quality of life
- Blood lipids
- Oxidative stress and inflammation

However, some studies didn’t find any benefits of omega-3s for lupus [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Please note: *Omega-3s can interact with blood thinners (like aspirin, Plavix, Coumadin). Consult your doctor before supplementing* [\[R\]](#).

10



Avoid Sugary Foods & Drinks

IMPACT

2 / 5

EVIDENCE

3 / 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 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

In people with lupus, a low-glycemic index (low-GI) diet may help improve [R](#), [R](#), [R](#):

- Weight
- Fatigue
- Quality of life

11



Cognitive-Behavioral Therapy (CBT)

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Schedule weekly sessions with a certified cognitive-behavioral therapist for a period of 5 to 20 weeks. Engage actively in exercises assigned by your therapist both during sessions and as homework to apply CBT strategies to daily life.

Description

Cognitive-behavioral therapy (CBT) is a psychotherapeutic approach that has been effective in treating various mental health conditions by helping individuals identify and change negative thought patterns and behaviors. It is widely used for conditions like depression, anxiety, and phobias.

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

Talk therapy is a great way to improve many conditions, including [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Depression
- Anxiety disorders
- PTSD
- OCD
- Substance use disorder
- Bipolar disorder

Cognitive-behavioral therapy (CBT) is a type of talk therapy. 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

In one study, daily stress worsened cognitive performance in lupus patients. Stress-management interventions such as cognitive-behavioral therapy or counseling may reduce [anxiety](#) and lupus severity while improving life quality [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).



PERSONALIZED TO YOUR GENES

The [UHRF1BP1](#) gene controls the release of *macrophage migration inhibitory factor* (MIF) from [white blood cells](#). MIF is an inflammatory protein involved in autoimmune conditions such as rheumatoid arthritis and lupus [\[R, R, R, R\]](#).

Your genotype for [rs3734266](#) correlates with higher odds of lupus development. It may increase MIF levels by altering *UHRF1BP1* activity [\[R\]](#).

MIF can trigger [inflammation](#) in response to psychological [stress](#) [\[R, R, R\]](#).

>>> *To learn more about the link between the UHRF1BP1 gene and lupus, check out the full SelfDecode blog post [here](#).*

The [IKZF1](#) gene reduces [IFN-gamma](#) production. IFN-gamma plays a role in lupus and other autoimmune conditions; lupus patients tend to have higher IFN-gamma levels [\[R, R, R\]](#).

Your genotype for [rs4917014](#) has been associated with higher rates of lupus. It likely increases IFN-gamma levels by suppressing *IKZF1* [\[R, R\]](#).

Preliminary research has associated [stress](#) and [anxiety](#) with elevated IFN-gamma [\[R, R, R\]](#).

>>> *To learn more about the link between the IKZF1 gene and lupus, check out the full SelfDecode blog post [here](#).*

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
UHRF1BP1	rs3734266	CT	
GENE	SNP	GENOTYPE	EVIDENCE
IKZF1	rs4917014	TT	

12



N-acetylcysteine (NAC)

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take 600 mg of N-Acetylcysteine (NAC) supplement daily with water. It can be taken at any time of the day, but try to take it at the same time each day for best results.

TYPICAL STARTING DOSE

600 mg

Description

NAC is a supplement that contains a form of the amino acid cysteine, a protein building block that your body uses to make the antioxidant glutathione. It is used for its potential antioxidant properties and its ability to support lung, gut, and mental health.

[N-acetylcysteine](#) (NAC) is converted to cysteine in the body. Cysteine is a protein building block (amino acid) that helps make the antioxidant glutathione [\[R\]](#).

People take NAC to potentially support [\[R\]](#), [\[R\]](#):

- Mental health
- Ovarian health and pregnancy outcomes
- Lung health
- Gut health

How it helps

In people with lupus, supplementing with high doses of NAC for 3 months may reduce [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Disease severity
- Fatigue
- Complications
- ADHD symptoms

Please note: *Long-term safety of NAC doses above 2,000 g is not established. Your doctor will determine a dosage optimal for you [\[R\]](#).*



PERSONALIZED TO YOUR GENES

The [UHRF1BP1](#) gene controls the release of *macrophage migration inhibitory factor* (MIF) from [white blood cells](#). MIF is an inflammatory protein involved in autoimmune conditions such as rheumatoid arthritis and lupus [\[R, R, R, R\]](#).

Your genotype for [rs3734266](#) correlates with higher odds of lupus development. It may increase MIF levels by altering *UHRF1BP1* activity [\[R\]](#).

[N-acetylcysteine](#) (NAC) may inhibit the release of MIF in response to [oxidative stress](#) [\[R, R\]](#).

>>> *To learn more about the link between the UHRF1BP1 gene and lupus, check out the full SelfDecode blog post [here](#).*

The [UBE2L3](#) gene helps make an enzyme that alters the structure and activity of [NF-kB](#) and other inflammatory proteins. NF-kB has conflicting roles in autoimmunity, but its levels are increased in most autoimmune conditions, including lupus [\[R, R, R, R, R, R\]](#).

Your genotype for [rs131654](#) ('TT'; *homozygous major*) has been associated with higher rates of lupus. It may alter *UBE2L3* activity and increase NF-kB levels [\[R, R, R\]](#).

[N-acetylcysteine](#) (NAC) may reduce NF-kB levels [\[R, R\]](#).

>>> *To learn more about the link between the UBE2L3 gene and lupus, check out the full SelfDecode blog post [here](#).*

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
UHRF1BP1	rs3734266	CT	

GENE	SNP	GENOTYPE	EVIDENCE
UBE2L3	rs131654	TT	



13



Avoid Air Pollution

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

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.

Description

Avoiding air pollution by reducing exposure to pollutants in the environment is essential for respiratory and overall health. It can help lower the risk of respiratory diseases, cardiovascular conditions, and other health issues associated with poor air quality.

While city life is convenient in a lot of ways, it comes with some health hazards. Cars, factories, and other sources increase air [pollution](#) [R].

Air pollution plays a role in [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Lung disease
- Heart disease
- Diabetes
- Asthma
- Skin conditions

How it helps

A systematic review of 12 studies found no significant link between a 3-day increase in PM2.5 and lupus DAI score but did find a positive relationship between 6-day PM2.5 increase and this parameter. No significant associations were found for CO, NO2, PM10, or SO2, but ozone was linked to increased hospitalization among lupus patients. PM2.5 was associated with higher lupus risk [\[R\]](#).

Air pollutants may trigger inflammation and exacerbate lupus symptoms such as joint pain and fatigue.

14



Dietary Omega-3 Fatty Acids

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Incorporate foods high in omega-3 fatty acids into your diet daily. This includes eating fish such as salmon, mackerel, and sardines at least twice a week. Alternatively, include a tablespoon of flaxseed oil or chia seeds in your daily diet.

Description

[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. **EPA and DHA are vital for mental and heart health** [\[R\]](#), [\[R\]](#), [\[R\]](#).

Fatty fish are rich in EPA and DHA. They include [\[R\]](#):

- Salmon
- Tuna
- Herring
- Sardines

For optimal health, 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

Low levels of omega-3s may raise the risk of lupus by almost 50% [\[R\]](#).

 PERSONALIZED TO YOUR GENES

The [ITGAM](#) gene helps make one part of Mac-1, a protein that prevents excessive inflammation, tissue damage, and the production of self-targeting antibodies. Mac-1 may have a protective role in lupus by increasing the levels of A20, an immune suppressor [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Your genotype for [rs1143679](#) has been associated with higher rates of lupus. It likely inhibits A20 by reducing ITGAM activity [\[R\]](#), [\[R\]](#), [\[R\]](#).

[Omega-3](#) fatty acids raised A20 levels in animals and test tubes [\[R\]](#), [\[R\]](#), [\[R\]](#).

>>> To learn more about the link between the *ITGAM* gene and lupus, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
ITGAM	rs1143679	AG	

15



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

In one study, daily stress worsened cognitive performance in lupus patients. Stress-management interventions such as cognitive-behavioral therapy or counseling may reduce [anxiety](#) and lupus severity while improving life quality [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).



PERSONALIZED TO YOUR GENES

The [UHRF1BP1](#) gene controls the release of *macrophage migration inhibitory factor* (MIF) from [white blood cells](#). MIF is an inflammatory protein involved in autoimmune conditions such as rheumatoid arthritis and lupus [\[R, R, R, R\]](#).

Your genotype for [rs3734266](#) correlates with higher odds of lupus development. It may increase MIF levels by altering *UHRF1BP1* activity [\[R\]](#).

MIF can trigger [inflammation](#) in response to psychological [stress](#) [\[R, R, R\]](#).

>>> *To learn more about the link between the UHRF1BP1 gene and lupus, check out the full SelfDecode blog post [here](#).*

The [IKZF1](#) gene reduces [IFN-gamma](#) production. IFN-gamma plays a role in lupus and other autoimmune conditions; lupus patients tend to have higher IFN-gamma levels [\[R, R, R\]](#).

Your genotype for [rs4917014](#) has been associated with higher rates of lupus. It likely increases IFN-gamma levels by suppressing *IKZF1* [\[R, R\]](#).

Preliminary research has associated [stress](#) and [anxiety](#) with elevated IFN-gamma [\[R, R, R\]](#).

>>> *To learn more about the link between the IKZF1 gene and lupus, check out the full SelfDecode blog post [here](#).*

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
UHRF1BP1	rs3734266	CT	
GENE	SNP	GENOTYPE	EVIDENCE
IKZF1	rs4917014	TT	

16



Limit Protein Intake

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Limit your daily protein intake to 0.8 grams per kilogram of your body weight. For example, if you weigh 70 kilograms (about 154 pounds), aim to consume no more than 56 grams of protein per day. Adjust this goal based on your activity level and health status, reducing intake further if advised by a healthcare professional.

Description

Proteins, fats, and carbs are macronutrients. You need these nutrients in large (‘macro’) amounts. They provide your body with the energy it needs to function properly [\[R\]](#).

You should choose high-quality foods that give you the “best” version of each macronutrient. For example, too much protein from certain animal sources may increase the risk of bone, kidney, and metabolic issues in some people [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

A low-protein diet may slow down kidney damage in people with lupus. The sources of dietary protein are also important. The [Mediterranean diet](#), which emphasizes plant-based protein, may be a good option [\[R\]](#), [\[R\]](#).

In people with damaged kidneys, **low-protein diets (0.6-0.9 g of protein per kg daily)** may [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Reduce strain on the kidneys
- Improve kidney function
- Delay kidney disease progression

Protein isn’t all bad as some is needed to prevent complications of kidney disease. It’s crucial to get enough of all essential amino acids. **Thus, experts recommend balancing your protein intake to support kidney health** [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Work with a healthcare professional to determine the ideal protein intake for you [\[R\]](#).

17



Legumes

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Incorporate a serving of legumes, such as beans, lentils, chickpeas, or peas, into your diet at least four times a week. A serving size is approximately half a cup cooked. Ensure to prepare them properly by soaking and rinsing beans, if applicable, to reduce anti-nutrients and improve digestibility.

Description

Legumes, such as beans, lentils, and chickpeas, are excellent sources of plant-based protein, fiber, and various vitamins and minerals. Including legumes in your diet can promote satiety and support digestive health.

Legumes are plants from the *Fabaceae* family. Their edible seeds are called **pulses**. Legumes are important food staples and sources of carbohydrates, fiber, protein, iron, and other key nutrients.

Common legumes include:

- Peanuts
- Beans
- Chickpeas
- Peas
- Lentils

How it helps

According to one large study, diets high in nuts and legumes may be linked to a **67% lower risk** of lupus [\[R\]](#).

Common legumes include peanuts, beans, and chickpeas.

18



Mediterranean Diet

IMPACT

1 / 5

EVIDENCE

2 / 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

A diet high in nuts and legumes is linked to a lower risk of lupus in women. However, the [Mediterranean diet](#) in particular doesn’t seem to provide this benefit [\[R\]](#).

According to one study, the Mediterranean diet may help reduce lupus severity and the risk of heart disease [\[R\]](#).

The Mediterranean diet contains moderate amounts of protein and emphasizes whole, plant-based sources. For this reason, it may be a good option for people with kidney damage due to lupus [\[R\]](#).



PERSONALIZED TO YOUR GENES

The [LBH](#) gene codes for a protein that reduces the growth and expansion of specific joint cells called *fibroblast-like synoviocytes*. Uncontrolled growth of these cells may enhance lupus progression by releasing inflammatory proteins [\[R, R, R, R\]](#).

Your genotype for [rs7579944](#) ('CC'; *homozygous minor*) has been associated with higher odds of developing lupus, likely due to reduced LBH activity [\[R, R\]](#).

The Mediterranean diet is rich in [olive oil](#), which may increase the production of LBH [\[R, R\]](#).

>>> *To learn more about the link between the LBH gene and lupus, check out the full SelfDecode blog post [here](#).*

The [IKZF1](#) gene reduces [IFN-gamma](#) production. IFN-gamma plays a role in lupus and other autoimmune conditions; lupus patients tend to have higher IFN-gamma levels [\[R, R, R\]](#).

Your genotype for [rs4917014](#) has been associated with higher rates of lupus. It likely increases IFN-gamma levels by suppressing *IKZF1* [\[R, R\]](#).

The Mediterranean diet supplemented with extra-virgin [olive oil](#) may reduce IFN-gamma levels and inflammation [\[R, R\]](#).

>>> *To learn more about the link between the IKZF1 gene and lupus, check out the full SelfDecode blog post [here](#).*

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
LBH	rs7579944	CC	

GENE	SNP	GENOTYPE	EVIDENCE
IKZF1	rs4917014	TT	

19



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 supplementation (500 mg, 3x/day) may reduce blood pressure and kidney damage in lupus patients [R].



PERSONALIZED TO YOUR GENES

The [LBH](#) gene codes for a protein that reduces the growth and expansion of specific joint cells called *fibroblast-like synoviocytes*. Uncontrolled growth of these cells may enhance lupus progression by releasing inflammatory proteins [R, R, R, R].

Your genotype for [rs7579944](#) ('CC'; *homozygous minor*) has been associated with higher odds of developing lupus, likely due to reduced LBH activity [R, R].

[Curcumin](#), the active ingredient in turmeric, increased the production of LBH by 16-fold in test tubes. Turmeric supplementation may reduce blood pressure and kidney damage in lupus patients. Note that [piperine](#) from black pepper significantly increases curcumin absorption [R, R, R].

>>> To learn more about the link between the LBH gene and lupus, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
LBH	rs7579944	CC	

20

Green Tea Extract

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take a green tea extract supplement containing 250-500 mg of EGCG (the active compound in green tea) daily, preferably with a meal to enhance absorption. This dosage is typically split into two separate doses, taken in the morning and later in the day. Continue this regimen for at least three months to observe potential health benefits.

TYPICAL STARTING DOSE

250 mg

Description

Green tea extract is a concentrated form of the beneficial compounds found in green tea, such as catechins. It is used in dietary supplements for its potential to enhance metabolism, aid in weight management, and provide antioxidant protection.

[Green tea](#) is made from the same plant as black tea (*Camellia sinensis*). However, the leaves and buds are processed differently [\[R\]](#).

Green tea contains **catechins**. These are antioxidants that help prevent [oxidative stress](#) [\[R\]](#).

EGCG is the main catechin found in green tea. It may help reduce inflammation and support weight loss [\[R\]](#).

How it helps

According to a single study, taking **green tea extract with 22% polyphenols** (1000 mg/day for 12 weeks) may improve lupus severity and quality of life. Drinking **one cup of green tea** per day would provide roughly the same amount of polyphenols [\[R\]](#).

Please note: polyphenols from green tea may bind to iron and form insoluble complexes, which reduces iron absorption in the gut. If you have anemia, consult your healthcare provider before using green tea [\[R\]](#).

PERSONALIZED TO YOUR GENES

The [UHRF1BP1](#) gene controls the release of *macrophage migration inhibitory factor* (MIF) from [white blood cells](#). MIF is an inflammatory protein involved in autoimmune conditions such as rheumatoid arthritis and lupus [\[R, R, R, R\]](#).

Your genotype for [rs3734266](#) correlates with higher odds of lupus development. It may increase MIF levels by altering *UHRF1BP1* activity [\[R\]](#).

Catechins, active ingredients in [green tea](#), may reduce inflammation by inhibiting MIF [\[R, R\]](#).

>>> To learn more about the link between the *UHRF1BP1* gene and lupus, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
UHRF1BP1	rs3734266	CT	

21



Pycnogenol

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 100 mg of pycnogenol supplement daily. This can be taken in a single dose or divided into two doses of 50 mg each, one in the morning and one in the evening.

TYPICAL STARTING DOSE

100 mg

Description

Pycnogenol (pine bark extract) is derived from the bark of the maritime pine (Pinus pinaster). It has been used in traditional n European folk medicine for centuries, and more recently as a supplement. The extract contains a group of bioactive compounds known as proanthocyanidins, which may be beneficial in supporting cardiovascular health, promoting skin health, and aiding in the management of various conditions related to inflammation and oxidative stress.

Pycnogenol comes from the bark of pine trees that grow in the Mediterranean [R, R].

It may improve [R, R, R, R, R, R]:

- Athletic performance
- Seasonal allergies
- Cognitive function
- Joint health
- Varicose veins

How it helps

In people with lupus, pycnogenol supplementation (150 mg/day for 8 weeks) may reduce **symptoms, inflammation, and oxidative stress**. However, the available evidence is scarce [R, R].

 PERSONALIZED TO YOUR GENES

The [UBE2L3](#) gene helps make an enzyme that alters the structure and activity of [NF-kB](#) and other inflammatory proteins. NF-kB has conflicting roles in autoimmunity, but its levels are increased in most autoimmune conditions, including lupus [R, R, R, R, R, R].

Your genotype for [rs131654](#) ('TT'; *homozygous major*) has been associated with higher rates of lupus. It may alter *UBE2L3* activity and increase NF-kB levels [R, R, R].

[Maritime pine bark extract](#) (*Pycnogenol*) may prevent the activation of NF-kB. In two clinical trials, Pycnogenol reduced inflammation, [oxidative stress](#), and lupus symptoms [R, R, R, R].

>>> To learn more about the link between the *UBE2L3* gene and lupus, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
UBE2L3	rs131654	TT	

22



Flaxseed

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Consume 2 tablespoons of ground flaxseed daily. You can add it to your breakfast cereal, smoothies, or salads.

TYPICAL STARTING DOSE

2 tbsp

Description

Flaxseed is a nutrient-dense food that's high in fiber and omega-3 fatty acids. It may contribute to heart health, promote digestive regularity, and help manage cholesterol levels when included in a balanced diet.

[Flaxseed](#) is a common ingredient in bakery products. Some people also use it as a health food to support digestion [\[R\]](#).

Flaxseed is rich in many compounds, including [\[R\]](#):

- Vitamins and minerals
- Protein
- Fiber
- Omega-3 fatty acids ([ALA](#))

How it helps

Flaxseed oil contains alpha-linolenic acid, a type of omega-3 fatty acid which may help with reducing inflammation in lupus patients.

In people with lupus and kidney damage, ground flaxseed (30 g daily) may improve kidney function and reduce the markers of blood vessel inflammation [\[R, R\]](#).

 PERSONALIZED TO YOUR GENES

The [UBE2L3](#) gene helps make an enzyme that alters the structure and activity of [NF-kB](#) and other inflammatory proteins. NF-kB has conflicting roles in autoimmunity, but its levels are increased in most autoimmune conditions, including lupus [\[R, R, R, R, R, R\]](#).

Your genotype for [rs131654](#) ('TT'; *homozygous major*) has been associated with higher rates of lupus. It may alter *UBE2L3* activity and increase NF-kB levels [\[R, R, R\]](#).

[Flaxseed oil](#) suppressed NF-kB in animal studies [\[R, R\]](#).

>>> To learn more about the link between the *UBE2L3* gene and lupus, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
UBE2L3	rs131654	TT	

23



Dietary Zinc

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate foods high in zinc, such as beef, poultry, seafood (especially oysters), beans, nuts, and whole grains, into your daily diet. Aim for the recommended dietary allowance of zinc, which is 11 mg per day for adult men and 8 mg per day for adult women.

Description

Dietary zinc is essential for the body. It helps our immune system fight off bacteria and viruses, plays a role in healing wounds, and is essential for our sense of taste and smell. Without enough zinc, these systems may not work as effectively as they should.

How it helps

Lupus patients tend to have zinc deficiency. In animals, zinc deprivation worsened the symptoms of autoimmune diseases [\[R, R, R\]](#).

 PERSONALIZED TO YOUR GENES

The [ITGAM](#) gene helps make one part of Mac-1, a protein that prevents excessive inflammation, tissue damage, and the production of self-targeting antibodies. Mac-1 may have a protective role in lupus by increasing the levels of A20, an immune suppressor [\[R, R, R, R, R, R\]](#).

Your genotype for [rs1143679](#) has been associated with higher rates of lupus. It likely inhibits A20 by reducing ITGAM activity [\[R, R, R\]](#).

[Zinc](#) may reduce inflammation by increasing A20 production [\[R, R, R\]](#).

>>> To learn more about the link between the ITGAM gene and lupus, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
ITGAM	rs1143679	AG	

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Autoimmune Protocol (AIP) Diet

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Eliminate grains, legumes, nuts, seeds, nightshades, dairy, eggs, coffee, alcohol, refined sugars, refined oils, food additives, and processed foods from your diet for a minimum of 30 days. After this elimination period, gradually reintroduce foods one at a time, every 5-7 days, to identify any that trigger symptoms.

Description

The Autoimmune Protocol (AIP) diet is a dietary approach designed to help individuals with autoimmune diseases identify and eliminate foods that may trigger inflammation and autoimmune responses. It focuses on nutrient-dense, anti-inflammatory foods while avoiding potential allergens and irritants.

How it helps

The AIP diet aims to reduce inflammation and alleviate symptoms by eliminating foods potentially triggering an autoimmune response.

25



Limit Saturated Fat

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Reduce your intake of saturated fats by choosing lean cuts of meat, opting for low-fat or fat-free dairy products, and using cooking oils high in unsaturated fats (like olive or canola oil) instead of butter or lard. Aim to keep saturated fat to less than 10% of your total daily calories. For someone consuming 2000 calories a day, this means 20 grams or less of saturated fat per day.

Description

Limiting saturated fat intake is crucial for managing cholesterol levels and reducing the risk of heart disease. Choosing lean protein sources and incorporating unsaturated fats into the diet supports cardiovascular health and overall well-being.

How it helps

Saturated fats can exacerbate inflammation, so reducing intake may help manage symptoms of lupus.

26



Green Tea

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

Description

Tea is a beverage made by steeping the leaves of the *Camellia sinensis* plant in hot water. It comes in various types, including black, green, white, and herbal teas, and is known for its diverse flavors and potential health benefits due to antioxidants and other bioactive compounds.

[Green](#) and black tea are made from the same plant (*Camellia sinensis*). This plant is processed in different ways to make each type of tea [\[R, R\]](#).

Tea contains antioxidants called **flavonoids**, which may help prevent [\[R, R, R, R\]](#):

- Heart disease
- Cancer
- Diabetes

How it helps

Green tea contains antioxidants called epigallocatechin-3-gallate (EGCG), which can help reduce inflammation and damage to tissues, common issues in lupus. Additionally, it might contribute to overall immune system balance, potentially reducing lupus flares.

 PERSONALIZED TO YOUR GENES

The [UHRF1BP1](#) gene controls the release of *macrophage migration inhibitory factor* (MIF) from [white blood cells](#). MIF is an inflammatory protein involved in autoimmune conditions such as rheumatoid arthritis and lupus [\[R, R, R, R\]](#).

Your genotype for [rs3734266](#) correlates with higher odds of lupus development. It may increase MIF levels by altering *UHRF1BP1* activity [\[R\]](#).

Catechins, active ingredients in [green tea](#), may reduce inflammation by inhibiting MIF [\[R, R\]](#).

>>> To learn more about the link between the *UHRF1BP1* gene and lupus, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
UHRF1BP1	rs3734266	CT	

27



Acupuncture

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Visit a licensed acupuncturist for a session, typically lasting between 30 to 60 minutes, once or twice a week. Depending on your specific condition, a course of treatment might range from a few weeks to several months.

TYPICAL STARTING DOSE

1 hour

Description

Acupuncture is a part of traditional Chinese medicine. It involves inserting thin needles at specific points on the body. People use it to relieve pain and allergies, as well as reduce nausea and improve sleep.

[Acupuncture](#) is a part of traditional Chinese medicine. It involves **inserting thin needles at specific points on the body**. People use it to [\[R, R, R, R, R\]](#):

- Relieve pain
- Improve sleep quality
- Relieve allergies
- Reduce nausea

How it helps

Acupuncture can relieve some of the pain and inflammation caused by lupus by prompting your body to release natural painkillers and immune system regulators. However, this is a complementary treatment and should be used alongside, not in place of, medical interventions.

 PERSONALIZED TO YOUR GENES

The [ITGAM](#) gene helps make one part of Mac-1, a protein that prevents excessive inflammation, tissue damage, and the production of self-targeting antibodies. Mac-1 may have a protective role in lupus by increasing the levels of A20, an immune suppressor [\[R, R, R, R, R\]](#).

Your genotype for [rs1143679](#) has been associated with higher rates of lupus. It likely inhibits A20 by reducing ITGAM activity [\[R, R, R\]](#).

In one animal study, a form of [acupuncture](#) involving electric currents (electroacupuncture) increased the production of A20 [\[R\]](#).

>>> To learn more about the link between the ITGAM gene and lupus, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
ITGAM	rs1143679	AG	

28



Tai Chi

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Practice Tai Chi for 30 to 60 minutes at least twice a week. Choose a quiet, spacious area and follow along with a qualified instructor, either in person at a class or through an online video tutorial, to ensure proper technique and maximum benefit.

TYPICAL STARTING DOSE

1 hour

Description

Tai Chi is a traditional Chinese mind-body practice involving slow, flowing movements and deep breathing. It is known for its potential to reduce stress, improve balance, and enhance overall physical and mental well-being.

Tai chi involves gentle movements and breathing to strengthen and relax the mind and body. Practicing tai chi may help [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Manage pain
- Improve fitness
- Increase well-being
- Improve sleep and mood

How it helps

Tai Chi is a gentle form of exercise that can help maintain flexibility and balance while also reducing stress.

29



Meditation

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Set aside 10-20 minutes each day in a quiet space without distractions to practice meditation. Focus on your breath or perform guided meditation using an app or audio track.

TYPICAL STARTING DOSE

30 minutes

Description

Meditation is a mindfulness practice that can reduce stress, improve mental clarity, and promote relaxation. Regular meditation is associated with numerous mental and emotional health benefits, including reduced anxiety and enhanced emotional well-being.

Meditation is a relaxation technique that trains your mind to focus and redirect your thoughts. Some of the main types of meditation are [\[R\]](#):

- Mindfulness
- Focused
- Transcendental
- Mantra
- Moving

People use meditation to improve [\[R\]](#), [\[R\]](#):

- Stress and anxiety
- Mood
- Sleep disturbances
- Pain

How it helps

Meditation can reduce stress levels and improve pain tolerance, which is helpful for lupus patients who often experience joint pain and stress.

30



Aquatic Exercise

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Participate in aquatic exercise sessions, such as swimming or water aerobics, for 60 minutes, 3 to 5 times per week. Ensure the exercise intensity is moderate, allowing you to talk but not sing during the activity. Consistency over time is key, so aim to incorporate this into your weekly routine for at least 3 to 6 months to observe benefits.

TYPICAL STARTING DOSE

1 hour

Description

Aquatic exercise involves physical activity performed in water, such as swimming, water aerobics, or aquatic therapy. It is gentle on the joints, making it suitable for individuals with mobility issues, and can help improve cardiovascular fitness and muscle strength.

Aquatic exercise is any type of low-impact physical activity performed in a pool. In this type of cardio exercise, water helps the body float, which reduces gravity and makes the practice more comfortable and tolerable [\[R\]](#), [\[R\]](#).

Compared to land-based exercise, aquatic exercise may be better by [\[R\]](#):

- Reducing the stress and impact on joints
- Lowering fracture risk

Hence, it is usually **recommended for the elderly**. Aquatic exercise is also suitable for people who don't know how to swim [\[R\]](#).

How it helps

Aquatic exercise reduces stress on joints, providing a low-impact way for those with lupus to maintain strength and cardiovascular health without exacerbating symptoms.

31



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 helps individuals with lupus by promoting psychological flexibility and helping them adapt to chronic illness challenges. It can improve mental well-being.

32



Limit Copper Intake

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Do not include copper supplements in your daily vitamin or supplement routine. Check the labels of any multivitamins or dietary supplements you are currently taking to ensure they do not contain copper. Ideally, you should also check copper levels in your tap water. If they are excessive, consider using a reliable water filter or drinking spring water.

Description

Taking too many copper supplements can cause a copper overdose in your body. This can be harmful, leading to issues like stomach pain, nausea, and even heart problems. For healthy individuals, the amount of copper obtained through a balanced diet is usually enough without needing supplementation. It's vital to maintain the natural balance of minerals in the body for good health.

Contaminated tap water can also be a source of excess copper.

How it helps

Excessive copper can stimulate the immune system and potentially exacerbate lupus symptoms. Therefore, avoiding copper supplements might reduce these immune responses, potentially reducing flare-ups.

Genetically higher copper levels may increase the risk of lupus [\[R\]](#).

Next Steps

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

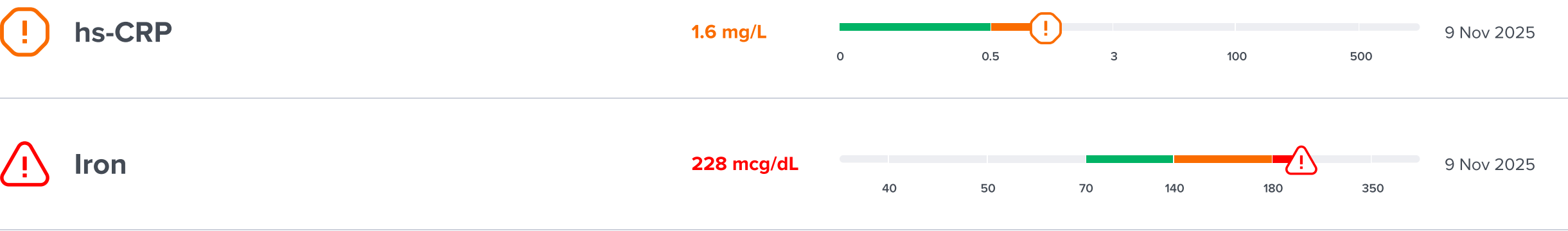
Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

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.

	Protein, Urine		NegativePositive	9 Nov 2025
	ESR	1 mm/hr	0615100	9 Nov 2025
	WBC	6.92 x10 ³ /mm ³	246.51140	9 Nov 2025
	Zinc	17.12 umol/L	7.659.1812.2419.89	9 Nov 2025
	Ferritin	102.2 ng/mL	3050150380	9 Nov 2025
	Platelet Count	215 x10 ³ /mm ³	30150200270450999	9 Nov 2025
	Vitamin D, 25-Hydroxy, Total	58.59 ng/mL	10203075150	9 Nov 2025
	Albumin	4.3 g/dL	3.44.45.5	9 Nov 2025
	Creatinine	1.08 mg/dL	0.60.71.11.2	9 Nov 2025



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 **reduced risk** of lupus based on the answers you provided.

Your Lifestyle Risk

Low

Decreased

Average

Increased

High

Factors impacting your risk:

Have you ever been diagnosed with atopic dermatitis (eczema)? Yes	Increasing Risk !
What is your age? 41	Increasing Risk !
Have you ever been diagnosed with asthma? No	Decreasing Risk ✓
Do you smoke tobacco? No, never	Decreasing Risk ✓
Have you ever been diagnosed with allergic rhinitis (hay fever)? No	Decreasing Risk ✓
Have you ever been diagnosed with Epstein-Barr virus (EBV) infection? No	Decreasing Risk ✓
What is your ethnicity? Ashkenazi Jewish	Decreasing Risk ✓
What is your sex? Male	Decreasing Risk ✓