

Hay Fever (Seasonal Allergies)

DNA Health Report

REPORT CATEGORIES —



ALLERGIES



RESPIRATORY HEALTH

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

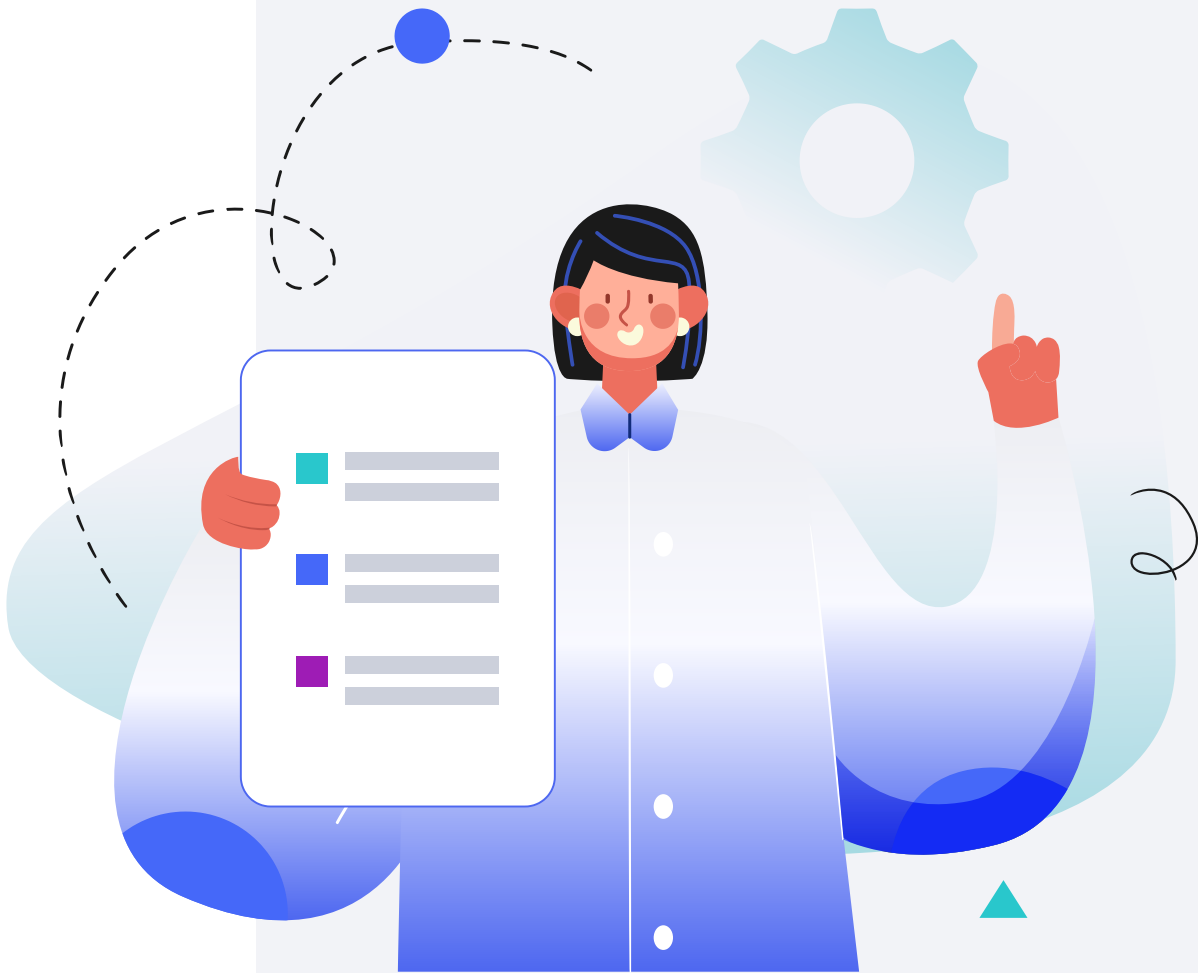
Male

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

Hay fever, also known as allergic rhinitis, is an allergic reaction to outdoor or indoor allergens. The most common ones include [\[R\]](#), [\[R\]](#):

- Pollen from trees, grasses, or ragweed
- Dust mites
- Pet dander
- Spores from molds and fungi
- Cockroach droppings

Symptoms of hay fever typically include [\[R\]](#):

- Sneezing
- Runny or stuffy nose
- Itchy eyes, nose, throat, or roof of the mouth
- Watery, red, or swollen eyes (conjunctivitis)
- Sinus pressure and facial pain
- Decreased sense of smell or taste

Despite its name, hay fever doesn't mean you're allergic to hay and doesn't cause a fever.

If you suspect you have hay fever, you can get an allergy test. The most common types of allergy tests are [\[R\]](#), [\[R\]](#), [\[R\]](#):

- **Skin prick test:** The allergen is mixed into water or oil. The doctor places a droplet on your arm and pricks the surface of the skin. If the skin becomes red and swollen, you are having an allergic reaction.
- **Patch test:** A patch is soaked with the allergen and placed on the skin for 1-3 days. This test is used to find allergies that don’t cause a fast, dramatic reaction.
- **Provocation test:** In a lab setting, you are exposed to an allergen. If you are testing for seasonal allergies, a doctor may spray specific types of pollen up your nose. This test is only used when other tests haven’t produced clear results.

Risk Factors and Management

Risk factors for hay fever include [\[R\]](#):

- Having other allergies or asthma
- Having atopic dermatitis (eczema)
- Living or working in an environment that constantly exposes you to allergens
- Being exposed to smoke and strong odors that irritate the lining of the nose
- Having a blood relative with allergies or asthma

Hay fever tends to run in families. If both of your parents have allergies, you're more likely to have allergies. The genetic predisposition to develop an allergic reaction is known as *atopy*.

There's no way to avoid getting hay fever. If you have hay fever, the best thing to do is to lessen your exposure to the allergens that cause your symptoms. Some useful strategies include [\[R\]](#):

- Keeping the windows and doors shut during pollen season.
- Checking pollen forecasts and trying to stay indoors when pollen counts are high.
- Wearing a dust mask when doing outdoor activities like gardening.
- Using a high-efficiency particulate air (HEPA) filter in your bedroom and other rooms where you spend a lot of time.
- Using allergy-proof covers on mattresses, box springs, and pillows.
- Washing sheets, blankets, and stuffed animals at least weekly in hot water.
- Vacuuming the floors and carpets and cleaning the dust from surfaces with a damp cloth at least weekly.
- Keeping pets out of your home, if possible
- Washing hands and clothes after contact with an animal.

Management and treatment options for hay fever symptoms include [\[R\]](#):

- Over-the-counter or prescription medications such as antihistamines, decongestants, and nasal



MORE LIKELY

More likely to have hay fever based on 12,604 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
IL18R1	rs950881	GG
HLA-DQA1	rs34004019	AA
ID2	rs13395467	AA
SULT1A1	rs9282864	AA
IL7R	rs7717955	CC
CXCR5	rs28361986	TT
BCL6	rs2030519	GG
BACH2	rs1504215	GG
ABO	rs2519093	TT
NEGR1	rs2815765	CC
TSLP	rs1438673	CT
LRRC32	rs7936323	GA
DEXI	rs11644510	TC
GATA3	rs11256017	CT
IKZF3	rs12939457	CT
PLCL1	rs2164068	TA
RAD54L2	rs62257549	AG
SLC7A10	rs11671925	GA
ZBTB10	rs7824993	AG
MYC	rs6470578	TA
MANBA	rs12509403	CT
DAW1	rs6738964	TG
FOSL2	rs11677002	TC
TLR1	rs5743618	AA

corticosteroids to ease the symptoms.

- Saline nasal rinses to relieve congestion and irritation.
- Allergy shots or under-the-tongue tablets (immunotherapy) might be an option for people whose symptoms aren’t effectively relieved by medications.

GENE	SNP	GENOTYPE
SIK3	rs141023293	GG
IL33	rs9775039	GG
HLA-B	rs2428494	TT
SMAD3	rs17294280	AA
KIAA1109	rs148505069	AA
NFATC2	rs3787184	GG
SLC22A5	rs9687749	GG
TTC6	rs61977073	AA
JAZF1	rs9648346	CC
FCER1G	rs2070902	CC
NDUFAF1	rs111371454	AA
ALDH2	rs35350651	ADEL()
AQP5	rs11169225	TT
TNFSF11	rs7328203	TT

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	Nasal Cleansing	2	Probiotics30 billion CFU
3	Avoid Air Pollution	4	Butterbur75 mg
5	Acupuncture1 hour	6	Quercetin250 mg
7	Black Seed Oil2 tsp	8	Black Seed (Black Cumin)1000 mg
9	Pycnogenol100 mg	10	Aerobic Exercise (Cardio)1 hour
11	Nasal Light Therapy25 minutes	12	Stinging Nettle300 mg
13	Avoid Triclosan	14	Maintain Optimal Vitamin D Levels1000 iu
15	Spirulina500 mg	16	Apple Polyphenols500 mg
17	Beta-Glucans	18	Lactobacillus Paracasei10 billion CFU
19	Lactobacillus Acidophilus10 billion CFU	20	Curcumin500 mg
21	CLA (Conjugated Linoleic Acid)3 g	22	Perilla Oil600 mg
23	Lactobacillus Casei10 billion CFU	24	Bifidobacterium Animalis Subsp. Lactis10 billion CFU
25	Resveratrol Nasal Spray	26	Honey
27	Low-Level Laser Therapy (LLLT)30 seconds	28	Agaricus Blazei500 mg
29	Astragalus500 mg	30	Choline Supplements425 mg
31	Vitamin E200 iu	32	Lactobacillus Gasseri10 billion CFU

33	Cinnamon Nasal Spray	34	Bifidobacterium Longum	10 billion CFU
35	Seawater Spray	36	Milk Thistle (Silymarin)	300 mg
37	Topical Shea Butter	38	Lactobacillus Rhamnosus HN001	10 billion CFU
39	Topical Capsaicin	40	Methylsulfonylmethane (MSM)	1 g

1



Nasal Cleansing

IMPACT4 / 5

EVIDENCE4 / 5

How to implement

Perform nasal cleansing using a saline solution twice a day, in the morning and evening. Tilt your head sideways over a sink and gently pour the saline solution into the upper nostril, allowing it to flow out of the lower nostril, then switch sides.

Description

Nasal cleansing, often done using saline solutions or neti pots, helps clear nasal passages, alleviate congestion, and reduce allergy symptoms, promoting better respiratory comfort and improved breathing.

Nasal cleansing involves rinsing your nasal passages with a sterile salt solution. This is done with a squeeze bottle or a teapot-like container called a neti pot [\[R, R\]](#).

People mainly use nasal cleanses to relieve a stuffy nose, which may be caused by [\[R, R\]](#):

- Allergies
- Colds
- Sinus problems

How it helps

If you suffer from hay fever, experts recommend cleansing your nose with a sterile salt solution. The process flushes out allergens and helps relieve congestion [\[R, R\]](#).

Nasal cleansing may improve hay fever symptoms and the quality of life. Best of all, **it’s cheap, safe, and easy to use** [\[R, R\]](#).

2



Probiotics

IMPACT

4 / 5

EVIDENCE

3 / 5

How to implement

Take a probiotic supplement containing 10 billion or more live cultures once daily, preferably with a meal or as directed by the packaging or a healthcare provider.

TYPICAL STARTING DOSE
30 billion CFU

Description

Probiotics are live beneficial bacteria and yeasts that can support gut health and digestive function when consumed as supplements or found in fermented foods like yogurt and sauerkraut. They may be beneficial to gut health, immune function, blood sugar, and mood.

Probiotic bacteria are “good” bacteria found mainly in the large intestine. They support your body and mind by [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Maintaining gut health
- Supporting a healthy immune system
- Improving your mood
- Helping to maintain healthy blood sugar

Prebiotics are certain types of fiber and other complex carbs that serve as food for gut bacteria. **They support gut health by helping boost the activity and growth of “good” bacteria** [\[R\]](#), [\[R\]](#).

Prebiotics are also added to foods and supplements. Common prebiotic ingredients are [\[R\]](#), [\[R\]](#):

- Oligo-fructose
- Oligo-galactose
- [Inulin](#)

Mixtures of probiotics and prebiotics are known as **synbiotics** [\[R\]](#).

How it helps

The following [probiotics](#) may help with allergies caused by dust mites or pollen:

- [Lactobacillus paracasei](#) (strain LP-33) [\[R\]](#), [\[R\]](#), [\[R\]](#)
- [L. acidophilus](#) (strain L-92) [\[R\]](#), [\[R\]](#)
- [L. casei](#) (strain Shirota) [\[R\]](#)
- [Bifidobacterium animalis](#) (strain NCC2818) [\[R\]](#)
- [L. gasseri](#) (strain OLL2809) [\[R\]](#)
- [B. longum](#) (strain BB536) [\[R\]](#)

Probiotics likely help by balancing the immune response and lowering inflammation [\[R\]](#), [\[R\]](#), [\[R\]](#).

3



Avoid Air Pollution

IMPACT3 / 5

EVIDENCE3 / 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

Some experts say that people with respiratory allergies should take special care to avoid air pollution. It may increase the risk of developing respiratory allergies and may worsen the symptoms [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Using air purifiers with HEPA filters may help [\[R\]](#).

Air pollution may contribute to allergies by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Causing [oxidative stress](#)
- Increasing inflammation
- Causing the airway to overreact to allergens

4



Butterbur

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Take a 75 mg butterbur supplement twice daily with meals to help manage your condition. Continue this regimen as advised by your healthcare provider.

TYPICAL STARTING DOSE
75 mg

Description

Butterbur is an herbal remedy commonly used for its potential to alleviate migraines and allergy symptoms. It contains compounds that may have anti-inflammatory and antispasmodic properties, providing natural relief for these conditions.

[Butterbur](#) is a shrub that has been used in traditional medicine for thousands of years. People even used it to treat plague during the Middle Ages [\[R\]](#).

Today, people mainly use a species of butterbur called *Petasites hybridus*. It may help relieve migraines and allergies [\[R\]](#), [\[R\]](#).

How it helps

Butterbur may improve hay fever symptoms. It may help by lowering inflammation [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Studied doses include:

- Butterbur extract containing **16-32 mg petasin** (active compound) for **1-2 weeks** [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#)
- 100-150 mg butterbur extract for 1-8 weeks** [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#)

Please note: *Make sure to get butterbur extract that’s labeled as “pyrrolizidine alkaloid (PA)-free.”* PAs are toxic to your lungs, liver, and other organs. Avoid butterbur if you’re allergic to ragweed, daisies, or chrysanthemums because it belongs to the same plant family [\[R\]](#), [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Your [BCL6](#) gene variant is linked to hay fever. This gene may influence the levels of IL-4, a crucial inflammatory protein. Butterbur may help by reducing IL-4 levels and inflammation [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
LPP	rs9865818	GG	

5



Acupuncture

IMPACT

3 / 5

EVIDENCE

3 / 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 may potentially improve allergies. It may help by balancing the immune response [\[R\]](#), [\[R\]](#), [\[R\]](#).

In people with respiratory allergies, acupuncture may [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Improve the symptoms
- Boost the quality of life

Please note: *Acupuncture is generally safe for most people. However, it may come with extra risks for pregnant women, people with pacemakers, and people with bleeding disorders. Consult your doctor or a licensed acupuncturist for more information* [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Your [STAT6](#) gene variant is linked to higher odds of hay fever. This gene helps make STAT6, a protein that contributes to allergy progression. Acupuncture may help by lowering STAT6 activity [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
STAT6	rs1059513	TT	

6



Quercetin

IMPACT

3 / 5

EVIDENCE

2 / 5

How to implement

Take 250-1000 mg of quercetin supplement daily with a glass of water, preferably with a meal to aid in its absorption.

TYPICAL STARTING DOSE
250 mg

Description

Quercetin is a natural plant flavonoid found in various foods, particularly in fruits and vegetables like apples, onions, and broccoli. It is used as a dietary supplement and is valued for its potential antioxidant and anti-inflammatory properties.

[Quercetin](#) is a **plant-based antioxidant**. It supports the immune system and helps lower inflammation [\[R\]](#), [\[R\]](#).

Good sources of quercetin include [\[R\]](#):

- Apples
- Onions
- Tea

People mainly use quercetin supplements to relieve allergies [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

Quercetin (100 mg/day for 8 weeks) may improve some symptoms of **Japanese cedar pollen allergy** [\[R\]](#), [\[R\]](#).

Quercetin may help by blocking the release of [histamine](#). In this way, it may reduce inflammation [\[R\]](#), [\[R\]](#).

Please note: *quercetin may inhibit the production of the thyroid hormone T4 (thyroxine). Individuals with thyroid disorders, particularly hypothyroidism or low T4 levels, should exercise caution when using quercetin and always consult with a healthcare provider before taking this supplement* [\[R\]](#).

Please note: *quercetin may interfere with iron absorption due to its iron-chelating properties, potentially exacerbating anemia or making it harder to manage. If you have anemia, consult your healthcare provider before using quercetin supplements* [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Your [IL33](#) gene variant is linked to higher odds of hay fever. This gene helps make IL-33, a protein that increases airway inflammation. Quercetin may help by blocking IL-33 and reducing inflammation [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
ERMP1	rs928413	GG	

7



Black Seed Oil

IMPACT

3 / 5

EVIDENCE

2 / 5

How to implement

Take one to two teaspoons (5-10ml) of black seed oil twice daily, preferably before meals. For capsule forms, follow the manufacturer's instructions, commonly 500mg capsules twice daily. Continue this regimen for up to 8 weeks to evaluate its effects.

TYPICAL STARTING DOSE

2 tsp

Description

Both black seed extract and black seed oil have been traditionally used for their potential health benefits, including anti-inflammatory and antioxidant properties. They may support overall wellness and immune function when incorporated into a balanced diet.

[Black seed](#) (black cumin) and its oil are used in cooking and traditional medicine [\[R\]](#).

People mainly use black seed for [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Allergies
- Joint pain

How it helps

Black seed oil may help with both hay fever and asthma [\[R\]](#), [\[R\]](#).

Black seed may help by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Boosting lung function
- Lowering inflammation
- Balancing the immune response
- Blocking histamine release

 PERSONALIZED TO YOUR GENES

Your **TSLP** gene variant is linked to hay fever. Black seed may help balance the immune response and lower inflammation [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
TSLP	rs1837253	CC	

8



Black Seed (Black Cumin)

IMPACT

3 / 5

EVIDENCE

2 / 5

How to implement

Take 1000 mg of black seed (black cumin) supplement daily, preferably split into two doses of 500 mg each, one in the morning and one in the evening.

TYPICAL STARTING DOSE

1000 mg

Description

Black seed, also known as black cumin or *Nigella sativa*, has been used for its potential health benefits in traditional medicine. It is believed to have anti-inflammatory, antioxidant, and immune-boosting properties.

[Black seed](#) (black cumin) and its oil are used in cooking and traditional medicine [\[R\]](#).

People use black seed for [\[R, R, R, R, R\]](#):

- Asthma
- Allergies
- High blood sugar
- High blood pressure
- Joint pain

How it helps

Black seed oil may help with both hay fever and asthma [\[R, R\]](#).

Black seed may help by [\[R, R, R\]](#):

- Boosting lung function
- Lowering inflammation
- Balancing the immune response
- Blocking histamine release

9



Pycnogenol

IMPACT

3 / 5

EVIDENCE

2 / 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

Pycnogenol (100 mg/day) may improve the symptoms in people with seasonal allergies. It may help when taken at least 5 weeks before allergy season [R].

Pycnogenol may help by:

- Blocking the release of histamine
- Lowering inflammation

 PERSONALIZED TO YOUR GENES

Your **STAT6** gene variant is linked to higher odds of hay fever. This gene helps make STAT6, a protein that contributes to allergy progression. Pine bark extract may help by blocking STAT6 [R, R, R, R, R].

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
STAT6	rs1059513	TT	

10



Aerobic Exercise (Cardio)

IMPACT

3 / 5

EVIDENCE

2 / 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

Cardio may help improve the symptoms of hay fever. It may also reduce eosinophils and inflammatory cytokines in nose secretions [\[R\]](#).

Exercise may help by reducing inflammation [\[R, R\]](#).

11



Nasal Light Therapy

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Use a nasal light therapy device for about 25 minutes per day. Insert the device gently into the nose, and turn it on to allow the light to work. This can be done once daily for several weeks or according to the specific product's instructions or until symptoms improve.

TYPICAL STARTING DOSE

25 minutes

Description

Nasal light therapy involves the use of low-level light to stimulate blood flow in the nasal cavity, potentially improving symptoms of sinusitis and congestion, and promoting better respiratory health.

Nasal light therapy involves shining different types of light into the nostrils. It’s mainly used to help relieve hay fever symptoms [\[R\]](#).

How it helps

Nasal light therapy may relieve symptoms and boost the quality of life in people with hay fever [\[R\]](#).

Some types of light that may help include [\[R\]](#), [\[R\]](#):

- A combination of visible and [UV](#) light
- [Red](#) light
- [Infrared](#) light

Nasal light therapy may help by balancing the immune response [\[R\]](#), [\[R\]](#).

 PERSONALIZED TO YOUR GENES

Your [ID2](#) gene variant is linked to higher odds of hay fever. This gene plays a role in the immune response. Nasal light therapy may help balance the immune response [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
ID2	rs10174949	GG	

12



Stinging Nettle

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take a 300 to 600 mg capsule of stinging nettle extract daily with water, ideally with a meal to reduce the risk of stomach discomfort. Continue for at least 3 months to observe benefits.

TYPICAL STARTING DOSE

300 mg

Description

Stinging nettle is a plant known for its stinging hairs on its leaves and stems, and is native to parts of Europe and Asia. It has been used in traditional medicine as an herbal remedy and today as a dietary supplement. It contains compounds like flavonoids, polyphenols, and vitamins A and C, iron, and calcium. This helps it provide potential benefits for allergies and arthritis.

[Stinging nettle](#) (*Urtica dioica*), also known as common nettle, is a herb that grows all over the world. Coming in contact with the stinging hairs on the leaves and stems may cause a burning sensation [\[R\]](#), [\[R\]](#), [\[R\]](#).

In ancient Egypt, it was commonly used to treat arthritis. Stinging nettle has also been used to [\[R\]](#):

- Reduce inflammation
- Relieve allergies
- Control blood pressure
- Improve wound healing
- Support prostate health

Stinging nettle is available in many forms, including:

- Capsules
- Tincture
- Tea
- Cream
- Leaves

How it helps

Both freeze-dried [stinging nettle](#) leaves (300 mg/day) and root extract (150 mg/day) may help with hay fever symptoms [\[R\]](#), [\[R\]](#).

Stinging nettle may help by reducing the release of histamine and inflammatory markers [\[R\]](#), [\[R\]](#).

However, stinging nettle (especially the leaves and hairs) contains histamine. For this reason, **some people may experience an allergic reaction to raw puréed nettle or nettle juice** [\[R\]](#).

 PERSONALIZED TO YOUR GENES

The [PTGER4](#) gene helps make a receptor for [prostaglandin](#) E2 (PGE2). Activation of this receptor by PGE2 promotes inflammation and may thus play a role in allergic reactions [[R](#), [R](#), [R](#)].

Your genotype for [rs7720838](#) may increase PTGER4 activity and correlates with higher odds of allergies [[R](#), [R](#), [R](#)].

In lab experiments, [stinging nettle](#) inhibited an enzyme that produces PGE2 and other prostaglandins [[R](#), [R](#), [R](#), [R](#)].

>>> To learn more about the link between the PTGER4 gene and allergic conditions, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
PTGER4	rs7720838	TT	

13



Avoid Triclosan

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Check product labels for triclosan and choose alternatives without this chemical. This includes personal care products like toothpaste, soaps, and hand sanitizers. Aim to replace products as they run out with triclosan-free versions.

Description

Avoiding products containing triclosan, an antibacterial and antifungal agent, can help prevent potential side effects and antibiotic resistance. Choosing triclosan-free alternatives supports safer and more sustainable hygiene practices.

How it helps

A large study associated exposure to triclosan with greater odds of being diagnosed with hay fever or allergies [[R](#)].

14



Maintain Optimal Vitamin D Levels

IMPACT2 / 5

EVIDENCE2 / 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

Low levels of vitamin D have been linked to **hay fever, but the evidence is mixed. Vitamin D (up to 4000 IU/day for at least 8 weeks)** may help manage the symptoms [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Vitamin D may help by [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Lowering inflammation
- Balancing the immune response
- Boosting lung function

However, the evidence connecting vitamin D to hay fever is fairly weak [\[R\]](#), [\[R\]](#), [\[R\]](#).

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

 PERSONALIZED TO YOUR GENES

The [PTGER4](#) gene helps make a receptor for [prostaglandin](#) E2 (PGE2). Activation of this receptor by PGE2 promotes inflammation and may thus play a role in allergic reactions [\[R, R, R\]](#).

Your genotype for [rs7720838](#) may increase PTGER4 activity and correlates with higher odds of allergies [\[R, R, R\]](#).

[Vitamin D](#) may counteract your variant by reducing PTGER4 activity [\[R, R\]](#).

>>> To learn more about the link between the PTGER4 gene and allergic conditions, check out the full SelfDecode blog post [here](#).

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
PTGER4	rs7720838	TT	

15



Spirulina

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take 1-8 g of spirulina supplements daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

500 mg

Description

Spirulina is a blue-green algae. It is rich in nutrients like protein, vitamins, and minerals, particularly vitamin B12 and iron, and is a source of antioxidants, chlorophyll, and phycocyanin. It can be found in powdered or tablet form as a supplement, and is often used to boost energy, support the immune system, and enhance overall nutrition. Additionally, spirulina.

[Spirulina](#) is a supplement made from blue-green algae that grows in fresh and marine water [\[R, R\]](#).

Dried spirulina is up to 70% protein. It’s also rich in vitamins, antioxidants, and healthy fats. This makes it a great source of nutrition for both people and livestock [\[R, R, R\]](#).

People use spirulina supplements to reduce [\[R, R\]](#):

- Cholesterol
- Blood pressure
- Blood sugar

How it helps

In people with hay fever, **spirulina (2 g/day for 6 months)** may improve symptoms like runny nose and sneezing. It likely blocks white blood cells that trigger allergic reactions [\[R, R, R\]](#).

16



Apple Polyphenols

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take 500 mg of an apple polyphenol supplement daily, preferably with meals to enhance absorption. It is recommended to continue this supplementation for at least 4 weeks to start observing potential health benefits.

TYPICAL STARTING DOSE

500 mg

Description

Polyphenols are antioxidants found in many plants. High amounts are found in fruits like grapes, cherries, and apples. Apple polyphenols may help reduce hair loss and oxidative stress.

Polyphenols are antioxidants found in many plants. High amounts are found in fruits like grapes, cherries, and apples [\[R\]](#).

Apple polyphenols may help reduce hair loss and oxidative stress [\[R\]](#), [\[R\]](#).

How it helps

Supplementation with apple polyphenols (50-500 mg/day) may reduce sneezing attacks, nose discharge, and turbinate swelling in people with hay fever caused by Japanese cedar pollen or dust mites [\[R\]](#), [\[R\]](#).

Importantly, **people who are allergic to birch pollen may react to apples** because these fruits contain proteins similar to those found in birch pollen (this is called *cross-reactivity*). Gradually increasing apple consumption may induce tolerance [\[R\]](#), [\[R\]](#).

Apple polyphenols may help by reducing histamine release.

17



Beta-Glucans

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take a beta-glucan supplement daily, with a dosage ranging from 250mg to 500mg. It is best consumed with a meal to enhance absorption. Continue this routine daily to support immune health.

Description

Beta-glucans are types of soluble fiber found in foods like oats and barley. They have been associated with immune system support and may help lower cholesterol levels when consumed as part of a heart-healthy diet.

Beta-glucan is a type of soluble fiber with antioxidant properties. It is abundant in [\[R, R\]](#):

- Baker's yeast
- Cereals (e.g., oats, barley)
- Mushrooms (e.g., maitake)
- Seaweeds

People use beta-glucans to [\[R, R, R, R, R\]](#):

- Improve immunity (e.g., fight infections)
- Reduce blood sugar
- Reduce cholesterol

How it helps

Supplementation with beta-glucans (250 mg/day) may reduce the incidence and severity of hay fever symptoms. Beta-glucans may help people with allergy to [\[R, R, R\]](#):

- Ragweed pollen
- Cedar pollen
- Olive tree pollen

18



Lactobacillus Paracasei

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take a supplement containing Lactobacillus paracasei daily, with a dose of around 10 billion colony-forming units (CFUs). Consume the supplement with or without food, but consistently at the same time each day for at least 4 weeks to observe beneficial effects.

TYPICAL STARTING DOSE
10 billion CFU

Description

Lactobacillus paracasei is a beneficial probiotic strain that can support digestive health and contribute to a balanced gut microbiome. It may help improve gut function, enhance nutrient absorption, and bolster the immune system, promoting overall well-being.

[Lactobacillus paracasei](#) is a type of bacteria naturally found in the intestine. It is considered a [probiotic bacteria](#), which means “good” bacteria that has health benefits when taken in adequate amounts [\[R\]](#).

L. paracasei is used in the production of the following fermented foods [\[R\]](#):

- Yogurt
- Cheese
- Sauerkraut

It may help [\[R, R, R, R, R, R, R, R\]](#):

- Improve gut and skin health
- Boost immunity
- Fight allergies

How it helps

Supplementation with *L. paracasei* (strain LP-33) may improve quality of life in people with allergies to weed pollen and dust mites [\[R, R\]](#).

Probiotics likely help by balancing the immune response and lowering inflammation [\[R, R, R\]](#).

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Lactobacillus Acidophilus

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take a probiotic supplement containing Lactobacillus acidophilus. Look for products that offer around 10 billion CFUs (colony-forming units) and take it once daily, preferably on an empty stomach, either first thing in the morning or right before bed.

TYPICAL STARTING DOSE
10 billion CFU

Description

[Lactobacillus acidophilus](#) is a [probiotic](#) bacterium that has been traditionally and widely used in the dairy industry to make yogurt [\[R\]](#).

More recently, *L. acidophilus* has been used as a probiotic. People take it to help with [\[R, R, R, R\]](#):

- High cholesterol
- Gut diseases
- Allergies
- Vaginal infections

How it helps

Milk fermented with *L. acidophilus* (strain L-92) may improve the symptoms in people with allergies to Japanese cedar pollen and dust mites [\[R, R\]](#).

Probiotics likely help by balancing the immune response and lowering inflammation [\[R, R, R\]](#).

20



Curcumin

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

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

TYPICAL STARTING DOSE
500 mg

Description

Curcumin is a compound found in turmeric known for its anti-inflammatory and antioxidant properties. It has been studied for its potential to reduce inflammation, support joint health, and contribute to overall well-being.

[Turmeric](#) is a yellow spice from India. It may reduce inflammation and [oxidative stress](#) [R].

The most important active compound in turmeric is **curcumin**. People use curcumin for [R, R, R, R, R, R]:

- Joint pain
- Hay fever
- Mood
- High blood sugar
- Gut health
- Liver health

How it helps

In people with **hay fever**, **curcumin (0.5 g/day for 2 months)** may improve symptoms like sneezing and congestion. It likely helps by balancing the immune response [R].

Note that curcumin is hard to absorb. Look for supplements with *bioavailable* curcumin, which is easier to absorb. Combining it with [piperine](#) (a compound in black pepper) may also help [R, R].

Please note: *curcumin may interfere with iron absorption due to its iron-chelating properties, potentially exacerbating anemia or making it harder to manage. If you have anemia, consult your healthcare provider before using curcumin or turmeric supplements* [R, R, R].

21



CLA (Conjugated Linoleic Acid)

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 3 to 4 grams of CLA (conjugated linoleic acid) supplements daily, divided into two doses, preferably with meals to enhance absorption. Continue this regimen daily for at least 6 months to potentially see beneficial results.

TYPICAL STARTING DOSE

3 g

Description

CLA is a fatty acid found in meat and dairy products and is often used as a dietary supplement. Some studies suggest that CLA may have potential benefits for weight management and body composition by promoting fat loss and muscle preservation.

[Conjugated linoleic acids](#) (CLA) are **polyunsaturated fats** (PUFAs). They’re mainly found in meat and dairy. People also take them as supplements [\[R\]](#), [\[R\]](#).

CLA supplements are often marketed as weight loss aids [\[R\]](#).

How it helps

Supplementation with CLA (2 g/day) during the 8 weeks before pollen season may help reduce the symptoms [\[R\]](#).

22



Perilla Oil

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 600-900 mg of perilla oil daily, ideally with meals to enhance absorption. This should be divided into two or three doses throughout the day. Continue this regimen for at least 8 to 12 weeks to evaluate its effectiveness.

TYPICAL STARTING DOSE

600 mg

Description

Perilla oil is an edible oil extracted from the seeds of the Perilla frutescens plant, which is native to Asia. It is rich in omega-3 fatty acids, particularly alpha-linolenic acid (ALA), and is known for its potential health benefits, including supporting heart health, reducing inflammation, and providing essential nutrients like vitamin E and omega-3s.

How it helps

Supplementation with perilla extract (50-200 mg rosmarinic acid) may improve nose and eye symptoms in people with seasonal allergic disease [\[R\]](#).

23



Lactobacillus Casei

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a supplement containing Lactobacillus casei daily, with a dosage recommended by the product's manufacturer or a healthcare professional. The specific amount can vary, but it is commonly found in doses around 10 billion colony-forming units (CFUs). Continue this regimen for at least 4 weeks to observe potential health benefits.

TYPICAL STARTING DOSE
10 billion CFU

Description

Lactobacillus casei is a probiotic bacterium known for its potential to support gut health and immune function. It contributes to a balanced gut microbiome and may help alleviate digestive issues like diarrhea.

[Lactobacillus casei](#) is a [probiotic](#) bacterium found in fermented foods (e.g., cheese), as well as in the reproductive and gastrointestinal tracts of humans and other animals [\[R, R\]](#).

People mainly take *L. casei* to support a healthy gut microbiota [\[R\]](#).

How it helps

Supplementation with *L. casei* (strain Shirota) may change the production of antibodies and inflammatory cytokines in people with seasonal allergic rhinitis [\[R\]](#).

Probiotics likely help by balancing the immune response and lowering inflammation [\[R, R, R\]](#).

24



Bifidobacterium Animalis Subsp. Lactis

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a supplement containing Bifidobacterium animalis subsp. lactis at a dose of 10 billion colony-forming units (CFU) daily, with or without food. Joe's preferred strain is *B. lactis* HN019 (10B CFU). Continue this regimen daily for at least 2 weeks to 4 weeks to observe potential benefits.

TYPICAL STARTING DOSE
10 billion CFU

Description

Bifidobacterium animalis lactis is a specific strain of probiotic bacteria known for its potential to support digestive health and immune function.

[Bifidobacterium animalis](#) is a [probiotic](#) bacterium that can be found in the healthy gut of most mammals, including humans. *B. lactis* was previously considered to be a separate species but was shown to be a subspecies of *B. animalis* [\[R\]](#), [\[R\]](#).

People mainly take *B. animalis* to support gut health [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

Supplementation with *B. animalis* (strain NCC2818) may reduce the symptoms and the release of inflammatory cytokines in people with seasonal allergy to weed pollen [\[R\]](#).

Probiotics likely help by balancing the immune response and lowering inflammation [\[R\]](#), [\[R\]](#), [\[R\]](#).

25



Resveratrol Nasal Spray

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Use the resveratrol nasal spray by administering one to two sprays in each nostril, ideally once in the morning and once at night. Continue this routine daily for at least three months to potentially observe benefits.

Description

Resveratrol nasal spray is a supplement delivery method that may offer the antioxidant health benefits of resveratrol, potentially supporting heart health and overall well-being.

How it helps

In 2 placebo-controlled trials of 151 adults and 68 children with allergic rhinitis, applying resveratrol nose sprays (3x/day in each nostril) for 1-2 months improved symptoms such as runny and stuffy nose, itching, and sneezing. Resveratrol also reduced blood levels of antibodies, eosinophils, IL-4, and TNF-alpha [\[R\]](#), [\[R\]](#).

26



Honey

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Consume 1-2 tablespoons of raw honey daily, either directly or by mixing it into warm water, tea, or yogurt. Continue this practice regularly to observe benefits.

Description

Honey is a natural sweetener known for its antimicrobial properties and potential benefits for wound healing. It contains antioxidants and may have soothing effects on sore throats and coughs.

[Honey](#) is a thick, sweet substance. It’s made by honeybees from the nectar of flowering plants. There are many different types of honey. Besides sugar, honey also contains amino acids (protein building blocks), vitamins, and minerals [\[R\]](#).

People use honey for its anti-inflammatory and antioxidant properties. It can potentially help with [\[R\]](#):

- Heart problems
- Gut problems
- Cough
- Burns

How it helps

Consuming honey (1 g/kg body weight per day) may improve the symptoms in people with hay fever. However, the evidence is mixed [\[R, R\]](#).

In those allergic to birch pollen, birch honey (but not other types of honey) may improve symptom control and reduce the need for antihistamines [\[R\]](#).

27



Low-Level Laser Therapy (LLLT)

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Use a low-level laser therapy device, as directed by its manual or a healthcare professional, on the affected area. Generally, treatment involves applying the laser for a specified duration, often between 30 seconds to several minutes, per treatment area. Sessions can be conducted 2-3 times per week for a period of 4-12 weeks, depending on the condition being treated and the device used.

TYPICAL STARTING DOSE

30 seconds

Description

Low-level laser therapy (LLLT), also known as photobiomodulation, is a type of light therapy that uses low-intensity lasers to promote healing. It has been shown to be effective in treating a variety of conditions, including pain, inflammation, and wound healing.

How it helps

In a study of 80 hay fever patients, both intranasal low-level laser therapy (LLLT) and acupuncture (AT) treatments, administered three times a week for four weeks, improved nasal symptoms, quality of life, and nasal health. These benefits continued for four weeks after treatment. Intranasal LLLT was as effective as AT for total nasal symptom score (TNSS) improvement, showing noninferiority with a small effect size. No significant differences were observed in other health parameters [\[R\]](#).

28



Agaricus Blazei

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take an Agaricus blazei supplement in capsule form, usually ranging from 500 mg to 1500 mg per day, divided into two or three doses. This should be done with water, preferably 30 minutes before meals to help with absorption. Continue this regimen daily for a period of up to 3 months, then assess the effects and decide whether to continue based on your health goals.

TYPICAL STARTING DOSE

500 mg

Description

Agaricus blazei is a mushroom native to Brazil and Japan, known for its potential health benefits, attributed to its polysaccharide compounds, such as beta-glucans. It has been used in traditional medicines to help support immune system function. It may also be beneficial for cancer, diabetes, and high cholesterol.

How it helps

Agaricus blazei extract (60 mL/day) given during the 7 weeks before birch pollen season reduced allergic and asthmatic symptoms, medication use, and the levels of specific antibodies during the season in a placebo-controlled trial of 60 people [\[R\]](#).

29



Astragalus

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a 500 mg astragalus supplement once daily with a meal. Continue this regimen for at least 4 to 6 weeks to evaluate its effectiveness on your overall health.

TYPICAL STARTING DOSE

500 mg

Description

Astragalus is an herb used in traditional Chinese medicine. It is believed to have immune-boosting properties and may help reduce stress and support overall vitality.

[Astragalus](#) (*Astragalus membranaceus*) is an herb used in traditional Chinese medicine. It is commonly used for “tonifying Qi” or fatigue. It may help [\[R\]](#), [\[R\]](#):

- Reduce inflammation
- Fight [oxidative stress](#)

Astragalus root is a staple of traditional Chinese medicine, where it is also known as *Huang Qi*.

How it helps

Astragalus (80 mg/day) may improve the symptoms and quality of life in people with seasonal allergies to weed pollen [\[R\]](#).

30



Choline Supplements

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take choline supplements at a dosage of 425 mg to 550 mg daily, depending on age and gender, with a glass of water. It is best to consume choline supplements with a meal for optimal absorption. Continue this regimen daily as part of your dietary supplement routine.

TYPICAL STARTING DOSE

425 mg

Description

Choline is an essential nutrient that plays a crucial role in various bodily functions, including brain health, liver function, and metabolism. Incorporating choline-rich foods into your diet supports cognitive function and overall nutritional well-being.

[Choline](#) is a nutrient required for optimal health. Although the body makes some, we need to get choline from our diets to avoid deficiency [\[R\]](#).

It plays key roles in supporting [\[R\]](#), [\[R\]](#):

- DNA production
- Cell structure and function
- Brain, nerve, and heart health

Eggs and beef liver are the best sources of choline. If you can’t meet your daily requirements with food, consider taking a choline supplement such as [\[R\]](#):

- [Phosphatidylcholine](#) (PC)
- [Citicoline](#) (CDP-choline)
- [Alpha-GPC](#)
- [Lecithin](#)

They all supply choline, but each one has unique health perks you may prefer. Check out our posts on different choline-containing supplements to find out which one suits you best.

How it helps

A single-blind parallel-group study of 60 patients with allergic rhinitis found that oral choline [given as tricholine citrate (TRI)] (500 mg, 3x/day for 2 weeks) was inferior to intranasal budesonide (BUD, 200 microg, 2x/day). However, **76% of patients with BUD and 43% of patients with TRI found the drug to be effective** [\[R\]](#).

31



Vitamin E

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 200 IU of Vitamin E daily as a supplement, preferably with a meal that contains fat to enhance absorption.

TYPICAL STARTING DOSE

200 iu

Description

Vitamin E is a fat-soluble antioxidant found in various foods, such as nuts and seeds. It is known for its ability to protect cells from oxidative damage, support immune function, and may play a role in skin health. Vitamin E supplements are used to bolster antioxidant defenses and may be beneficial for conditions related to oxidative stress.

[Vitamin E](#) is an antioxidant important for the immune system and for heart health [\[R\]](#).

Plant-based foods have the most vitamin E. These include [\[R\]](#):

- Wheat germ
- Sunflower seeds
- Almonds
- Plant oils

Adults need about **15 mg** of vitamin E per day [\[R\]](#).

How it helps

Supplementing with vitamin E may improve hay fever. **However, the evidence is mixed** [\[R, R\]](#).

Vitamin E may help by [\[R, R, R, R\]](#):

- Fighting [oxidative stress](#)
- Lowering inflammation
- Preventing damage to the airways
- Balancing the immune response

Please note: *While dietary vitamin E is generally considered safe, vitamin E supplements have been linked to prostate cancer. They may also not be the best option for people who are pregnant or have heart disease, bleeding disorders, or other conditions. Consult your doctor before taking vitamin E supplements* [\[R\]](#).

32



Lactobacillus Gasseri

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a Lactobacillus gasseri supplement containing around 10 billion colony-forming units (CFUs) daily, ideally with a meal, for at least 2 weeks to 4 months to observe benefits. Continuous daily intake is recommended for ongoing support.

TYPICAL STARTING DOSE
10 billion CFU

Description

Lactobacillus Gasseri is a beneficial probiotic strain that can support digestive health and contribute to a balanced gut microbiome. It may help improve gut function, enhance nutrient absorption, and bolster the immune system, promoting overall well-being.

How it helps

Supplementation with heat-killed *L. gasseri* (strain OLL2809) may reduce the symptoms in people with seasonal allergy to Japanese cedar pollen [R].

Probiotics likely help by balancing the immune response and lowering inflammation [R, R, R].

33



Cinnamon Nasal Spray

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Use the cinnamon nasal spray by administering two sprays in each nostril, ideally in the morning and evening. Repeat this process daily for a period of two weeks to potentially see improvements in nasal congestion or other respiratory symptoms.

Description

Cinnamon nasal spray is sometimes used as a natural remedy for nasal congestion and sinus discomfort. Its potential antimicrobial and anti-inflammatory properties may help provide relief from common cold symptoms.

How it helps

In a study, participants with seasonal allergic rhinitis treated with cinnamon bark extract nasal spray for seven days showed significant improvement in symptoms and quality of life compared to a placebo group [R].

Cinnamon nasal sprays can assist in allergies due to their anti-inflammatory properties. Additionally, cinnamon has antihistamine effects that can lessen allergy symptoms.

34



Bifidobacterium Longum

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a Bifidobacterium longum supplement daily, with a typical dosage around 10 billion colony-forming units (CFUs). It can be consumed any time of day, but taking it with a meal might improve its absorption and effectiveness. Continue this regimen for at least 4 weeks to assess its benefits on digestive health.

TYPICAL STARTING DOSE
10 billion CFU

Description

Bifidobacterium longum is a beneficial probiotic strain known for its potential to support digestive health and boost the immune system.

[Bifidobacterium longum](#) is a [probiotic](#) bacterium naturally present in the human gastrointestinal tract. Its subspecies *B. longum subsp. infantis* is one of the earliest bacteria to colonize the infant gut [\[R\]](#).

People take *B. longum* to enhance immunity against infections and support gut health [\[R, R, R\]](#).

How it helps

Supplementation with *Bifidobacterium longum* (strain BB536) may reduce eye symptoms in people with seasonal allergies to Japanese cedar pollen [\[R\]](#).

Probiotics likely help by balancing the immune response and lowering inflammation [\[R, R, R\]](#).

35



Seawater Spray

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Use the seawater nasal spray according to the product's instructions, typically 2-3 sprays per nostril, 2-4 times a day. The duration of use may vary depending on the condition being treated, but it is often used for the duration of symptoms or as needed for nasal congestion relief.

Description

Seawater spray is a natural product made from seawater and is used for its potential to soothe nasal congestion and support respiratory health due to its trace mineral content.

How it helps

A study of 123 allergic rhinitis patients found that nasal mucociliary clearance times improved with both isotonic seawater spray with chamomile liquid extract and isotonic seawater spray [\[R\]](#).

Please note: Seawater contains much more salt than the human body can handle. Hence, the human body can safely ingest only small amounts of seawater. Drinking seawater may increase the risk of gastrointestinal infections [\[R, R\]](#).

36



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

In a placebo-controlled trial of 60 people with allergic rhinitis, treatment with the milk thistle compound silymarin (140 mg, 3x/day) for 1 month as an add-on to antihistamine therapy improved the symptoms better than the placebo [\[R\]](#).

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Topical Shea Butter

IMPACT

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EVIDENCE

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How to implement

Apply a small amount of shea butter directly onto the skin area in need of treatment, gently massaging it in until fully absorbed. Repeat this process 2-3 times daily, especially after showering or bathing when your skin is still slightly damp to enhance absorption.

Description

Shea butter is extracted from the nuts of the shea tree native to Africa and is known for its rich moisturizing properties. It is widely used in skincare products for its ability to hydrate and nourish the skin, making it suitable for dry and sensitive skin types.

How it helps

In a placebo-controlled trial of 33 people with seasonal allergies, topical application of shea butter (2-4 g) was as effective at relieving stuffy nose as xylometazoline, a decongestant drug [\[R\]](#).

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Lactobacillus Rhamnosus HN001

IMPACT

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EVIDENCE

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How to implement

L. rhamnosus HN001 is available in various forms, including capsules, powders, and sometimes as an ingredient in fermented dairy products like yogurts and kefir. Typically, doses range from 1 billion to 10 billion colony-forming units (CFUs) per day. It is often recommended to start with a lower dose and gradually increase it to gauge how your body responds. Consistency is key. Taking *L. rhamnosus* HN001 regularly can help maintain its effectiveness.

TYPICAL STARTING DOSE

10 billion CFU

Description

Lactobacillus rhamnosus HN001 is a probiotic strain originally isolated from dairy products. Research suggests that *L. rhamnosus* HN001 can have several beneficial impacts, particularly in the areas of digestive health and immune system support.

People mainly take *L. rhamnosus* HN001 to help with:

- IBS
- Diarrhea
- Respiratory infections
- Eczema
- Anxiety
- Depression

How it helps

In a placebo-controlled trial of pregnant women, supplementation with *L. rhamnosus* HN001 (6x10^9 cfu/day) from 35-week gestation to 6 months post-partum in mothers while breastfeeding and from birth to age 2 years in infants reduced the prevalence of hay fever, atopic sensitization, wheezing, and eczema [R].

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Topical Capsaicin

IMPACT

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EVIDENCE

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How to implement

Apply a capsaicin cream or gel to the affected area 3 to 4 times daily. Make sure the skin is clean and intact before application. Avoid contact with eyes, mouth, and other sensitive areas. Use consistently for several weeks to see improvement.

Description

Capsaicin is a compound found in chili peppers and is used topically in creams and patches for its potential to alleviate pain related to conditions like arthritis, neuropathy, and muscle soreness.

[Capsaicin](#) is the compound that makes chili peppers spicy [\[R\]](#).

People use topical capsaicin to relieve pain and oral capsaicin to aid weight loss [\[R, R\]](#).

In the short term, capsaicin causes pain. However, **if you’re exposed to a lot of capsaicin over a long period of time, it can reduce your pain sensitivity** [\[R, R\]](#).

***Please note:** Capsaicin may irritate the skin. Consult your doctor if the irritation is severe or lasts longer than 4 weeks. If capsaicin gets in your eyes, flush them with water immediately and consult your doctor* [\[R, R, R\]](#).

How it helps

In a placebo-controlled trial of 9 people with an allergy to birch pollen, the topical application of capsaicin in the nose for 2 months reduced the symptoms. However, this treatment was ineffective in a placebo-controlled trial of 26 people allergic to dust mites [\[R, R\]](#).

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Methylsulfonylmethane (MSM)

IMPACT

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EVIDENCE

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How to implement

Take 1 to 3 grams of Methylsulfonylmethane (MSM) per day, divided into three doses. This can be in the form of capsules or powder that is mixed with water. It is recommended to start with a lower dose to assess tolerance, then gradually increase to the desired dose over a period of 1 to 2 weeks.

TYPICAL STARTING DOSE
1 g

Description

MSM is a naturally occurring sulfur compound found in foods and used in dietary supplements. It has anti-inflammatory properties and may be used to support joint health and reduce exercise-related muscle soreness.

A molecule of MSM is broken down in the body into a sulfate (sulfur) group and two methyl groups.

The following may increase people’s needs for sulfur and methyl groups: physical activity, recovery from injuries, inflammation, infections/sickness, toxins, etc.

People also need more sulfur when taking hormones (DHEA, pregnenolone, etc.), drugs (Aspirin, Tylenol, NSAIDs, birth control, etc.) or supplements (flavonoids & polyphenols - resveratrol, quercetin, curcumin, etc.) that undergo sulfation.

How it helps

Both upper (a runny nose, watery and itchy eyes, stuffy nose, sneezing), and lower respiratory symptoms (coughing, shortness of breath) were reduced in people with seasonal allergic rhinitis after one month of [methylsulfonylmethane](#) (2,600 mg/day) supplementation in an uncontrolled trial of 55 people. However, MSM *worsened* the allergic symptoms in rare cases [\[R\]](#).

MSM may help through its anti-inflammatory and antioxidant properties, as well as by binding to the mucosa to block host-allergen contact [\[R, R\]](#).

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.

