

IgE

Biohacker Report

REPORT CATEGORIES —



INFLAMMATION &
AUTOIMMUNITY



ALLERGIES

Sample Client

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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

Immunoglobulin E (IgE) is a type of antibody. Antibodies recognize, bind to, and help remove microbes, such as [\[R\]](#):

- Bacteria
- Viruses
- Parasites (e.g., worms)

The main role of IgE is to protect the body from infections by parasitic worms [\[R\]](#).

IgE also contributes to [allergic diseases](#), such as [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Allergic asthma
- Eczema
- Hay fever
- Food allergies (e.g., peanut allergy)

People with allergies produce IgE that is specific to the allergen—substance that causes an allergy [\[R\]](#).

IgE stimulates the production of [histamine](#) and other "defense weapons". This results in unpleasant symptoms like skin itching and runny nose [\[R\]](#), [\[R\]](#), [\[R\]](#).

Factors Influencing IgE Levels

Immunoglobulin E (IgE) is a type of antibody. The main role of IgE is to protect the body from infections by parasitic worms. On the downside, it also contributes to [allergic diseases](#) [R, R].

Genetics influence IgE levels. Involved genes play a role in our bodies’ response to IgE. For example, the gene [FCER1A](#) helps make an IgE receptor—cell protein that binds IgE [R, R].

The most common causes of increased IgE levels are parasitic infections and allergies [R, R].

Smoking and alcohol drinking may also increase IgE levels. People with some health conditions may also have **high IgE levels**, including [R, R]:

- Viral infections [R, R]
- [Inflammatory bowel disease](#) (IBD) [R]
- Kidney disease [R]
- Rare genetic disorders [R, R]

Keep in mind that this report is not about the rare genetic disorders mentioned above. They are very rare and usually diagnosed in infancy.



Predisposed to typical IgE levels based on 16 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
ERMP1	rs928413	GG
FCER1A	rs2251746	TT
FCER1A	rs2427827	TC
STAT6	rs1059513	TT
NQO1	rs6499255	AA
ACKR1	rs13962	GG
HLA-C	rs3130941	GC
HLA-DQB1	rs2858331	AA
HLA-A	rs2523809	TG
LPP	rs9290877	TC
IL13	rs20541	GG
SLC22A5	rs1800925	CC
ERMP1	rs1342326	AA
FCER1A	rs2298805	GG
FCER1A	rs4656784	AA
HLA-A	rs2571391	AA
IL4R	rs1801275	AA

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

Your Recommendations

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

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

DOSAGE		DOSAGE	
1	Avoid Contact With Dust	2	Avoid Contact With Pollen
3	Probiotic Yogurt	4	Acupuncture1 hour
5	Lactobacillus Plantarum10 billion CFU	6	Quercetin250 mg
7	Lactobacillus Casei10 billion CFU	8	CLA (Conjugated Linoleic Acid)3 g
9	Guided Imagery30 minutes	10	Lactobacillus Paracasei and Fermentum10 billion CFU
11	Laughter Therapy30 minutes	12	Probiotics30 billion CFU
13	Cordyceps500 mg	14	Vitamin E200 iu
15	Kiwifruit	16	Sleep for 7+ Hours
17	Oyster Mushroom600 mg	18	Dietary Omega-3 Fatty Acids
19	Functional Relaxation20 minutes	20	Avoid Folate Supplements

1



Avoid Contact With Dust

IMPACT

3 / 5

EVIDENCE

5 / 5

How to implement

To avoid contact with dust, clean surfaces with a damp cloth at least twice a week, use a vacuum cleaner with a HEPA filter regularly on carpets and upholstery, and avoid using feather dusters that disperse dust into the air. Additionally, consider using air purifiers in rooms where you spend the most time and keep windows closed on windy days to prevent outdoor dust from coming in.

Description

Avoiding exposure to dust can help alleviate allergy symptoms such as sneezing, runny nose, and itchy eyes, promoting respiratory comfort and overall well-being, particularly for individuals with allergies or allergic conditions.

How it helps

Contact with dust mites can lead to IgE-mediated sensitization. The presence of specific IgE against dust mites indicates dust mite allergy [R, R].

Measures to reduce exposure to dust mite allergens, such as using allergen-impermeable covers for bedding and removing carpets, may decrease allergen levels. These interventions can lead to improvements in allergic symptoms and asthma outcomes [R].

Clinical trials demonstrate that dust mite avoidance measures may result in a reduction in house dust mite allergens and corresponding decreases in symptoms among asthmatic and allergic individuals [R].

2



Avoid Contact With Pollen

IMPACT

3 / 5

EVIDENCE

5 / 5

How to implement

Stay indoors during high pollen count days, usually during early morning or late afternoon. Close windows and use air purifiers to keep indoor air clean. Shower and change clothes after being outside to remove pollen.

Description

Avoiding exposure to pollen can help alleviate allergy symptoms such as sneezing, runny nose, and itchy eyes, promoting respiratory comfort and overall well-being, particularly for individuals with allergies and allergic conditions.

How it helps

Exposure to high, moderate, or even low levels of pollen can exacerbate allergy symptoms such as nasal congestion, watery eyes, and respiratory issues. Staying in environments with lower pollen exposure, like certain alpine locations or indoors, tends to alleviate these symptoms [R, R].

Green spaces can mitigate pollen allergy symptoms when allergenic tree density is low. However, exposure to certain air pollutants alongside pollen can increase the severity of allergic reactions, suggesting that multiple environmental factors influence the efficacy of pollen avoidance [R].

3



Probiotic Yogurt

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Consume one to two servings of probiotic yogurt each day. Each serving is typically 6 to 8 ounces. Continue this practice daily for at least 1 to 2 weeks to begin noticing benefits to digestive health.

Description

Probiotic yogurt is a dairy product containing live probiotic cultures like Lactobacillus and Bifidobacterium, which can aid digestion and improve gut health when consumed regularly. It is a good source of calcium, protein, and probiotics, contributing to bone health and digestive well-being.

How it helps

Probiotic yogurt lowered IgE levels and had other beneficial effects on immune parameters in several clinical trials. Successfully tested stains include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- *Lactobacillus gasseri* CECT5714 and *L. coryniformis* CECT5711
- *L. plantarum* CBS125632
- *L. plantarum* WCFS1
- *L. plantarum* NIZO3400
- *L. casei* Shirota
- *Bifidobacterium longum* BB536

4



Acupuncture

IMPACT2 / 5

EVIDENCE2 / 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 lower IgE and improve allergic symptoms in people with allergic rhinitis [[R](#), [R](#)].

5



Lactobacillus Plantarum

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take a probiotic supplement containing *Lactobacillus plantarum* 299V daily. The typical dosage is 10 billion colony-forming units (CFUs). Continue for at least 4 weeks to assess benefits on digestive health.

TYPICAL STARTING DOSE
10 billion CFU

Description

[Lactobacillus plantarum](#) is a [probiotic](#) bacterium found in many fermented plant products such as sauerkraut, pickles, brined olives, and Korean kimchi [\[R\]](#).

People take *L. plantarum* supplements to improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Diarrhea
- Skin appearance
- IBD
- High cholesterol

How it helps

In clinical trials, fermented orange juice with heat-killed *L. plantarum* LP0132 improved cedar pollen allergy symptoms and preserved Treg cell levels during peak season. Additionally, fermented citrus juice with the same strain reduced symptoms and immune markers in subjects with perennial allergic rhinitis. Fermented milk with *L. plantarum* HSK201 also showed benefits in allergic individuals by maintaining immune balance and reducing pollen-specific IgE levels. [\[R\]](#), [\[R\]](#), [\[R\]](#).

In a placebo-controlled trial of 62 subjects with birch pollen allergy, taking *L. plantarum* CBS125632 for 4 weeks decreased birch pollen-specific IgE counts and the levels of IL-5 and IL-13 [\[R\]](#).

A probiotic with *L. plantarum* and *Bifidobacterium longum* improved total nasal symptoms, *Dermatophagoides farinae*-specific IgE levels, and IL-10 levels in a placebo-controlled trial of 95 subjects with dust mite allergy [\[R\]](#).

6



Quercetin

IMPACT2 / 5

EVIDENCE1 / 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 may suppress allergic reactions, in part by reducing igE levels. It also helps prevent mast cell activation by IgE [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

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

7



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

In a placebo-controlled trial of 10 patients with seasonal allergic rhinitis, consuming a milk drink with *L. casei* Shirota for 5 months decreased antigen-induced IgE [\[R\]](#).

8



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

In a placebo-controlled trial of 28 healthy volunteers, supplementation with CLA (3 g/day) for 12 weeks lowered IgE levels in addition to producing other beneficial effects on the immune system [\[R\]](#).

9



Guided Imagery

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Find a quiet, comfortable place to sit or lie down where you can spend 20 to 30 minutes without interruptions. Close your eyes and take deep breaths to relax. Then, listen to a guided imagery audio recording or follow a script where you imagine a peaceful scene or scenario in detail. Do this practice daily, ideally at the same time each day, to reduce stress and improve well-being.

TYPICAL STARTING DOSE

30 minutes

Description

Guided imagery is a relaxation technique that involves using mental images to promote relaxation, reduce stress, and manage pain. It can have a positive impact on mental well-being and overall stress management.

Guided imagery is a relaxation technique that involves visualizing positive, peaceful settings. Guided imagery aims to [\[R\]](#), [\[R\]](#):

- Improve mind-body connection
- Enhance well-being
- Reduce stress and anxiety
- Improve immunity

How it helps

In a non-placebo-controlled trial of 64 adult patients with dust mite allergic asthma, functional relaxation, guided imagery, and their combination lowered IgE levels [\[R\]](#).

Guided imagery can help manage stress which is known to exacerbate IgE-mediated allergies by causing immune imbalance.

10

Lactobacillus Paracasei and Fermentum

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a probiotic supplement containing Lactobacillus paracasei and Lactobacillus fermentum. Look for products that specify the strains and the CFU (colony forming units) count on the label, aiming for a dosage of around 10 billion CFUs per day. Take the supplement daily, with or without food, as advised on the product packaging, for at least 4 weeks to potentially notice benefits.

TYPICAL STARTING DOSE
10 billion CFU

Description

[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

Lactobacillus fermentum 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

In a placebo-controlled trial of 160 children with asthma, supplementation with *L. paracasei*, *L. fermentum*, or their combination for 3 months reduced asthma severity. The combination also lowered IgE levels [\[R\]](#).

11



Laughter Therapy

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Dedicate at least 15-30 minutes a day to watch, listen to, or participate in activities that make you laugh, such as watching a comedy show, attending a stand-up comedy event, or engaging in laughter yoga sessions. Consistently incorporate these laughter-inducing activities into your daily routine for an ongoing period to harness the health benefits of laughter.

TYPICAL STARTING DOSE

30 minutes

Description

Laughter therapy has been shown to improve cardiovascular health, reduce stress, and boost the immune system. It can also help to improve mood, relieve pain, and increase social bonding.

How it helps

In a non-placebo-controlled trial of 24 men with atopic eczema, viewing a humorous video decreased IgE production by B cells cultured with sperms [\[R\]](#).

12



Probiotics

IMPACT

1 / 5

EVIDENCE

1 / 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

In a placebo-controlled trial of 10 patients with seasonal allergic rhinitis, consuming a milk drink with *L. casei* Shirota for 5 months decreased antigen-induced IgE [\[R\]](#).

13



Cordyceps

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 500-1000 mg of Cordyceps extract in supplement form once daily, preferably with a meal to enhance absorption. This dosage is commonly recommended for general wellness and should be continued on a long-term basis, as effects accumulate over time.

TYPICAL STARTING DOSE
500 mg

Description

Cordyceps is a type of medicinal mushroom known for its potential to boost endurance and enhance respiratory function. It's used in traditional medicine and dietary supplements to support physical performance and overall vitality.

[Cordyceps](#) are a group of fungi (mushrooms) that grow on insects. Some species, like *O. sinensis* and *C. militaris*, are used in supplements [\[R\]](#).

O. sinensis grows on a moth caterpillar. Extracts and teas made from the fungus-caterpillar combination are often used in traditional Chinese medicine. They are thought to boost sex drive, reduce fatigue, and support kidney health [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

In a non-placebo-controlled trial of 60 patients with moderate persistent asthma, supplementation with cordyceps as an add-on to inhaled corticosteroids for 2 months lowered IgE, sICAM-1, IL-4, and MMP-9 [\[R\]](#).

14



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

Supplementation with vitamin E lowered IgE levels in a non-placebo-controlled trial of 96 subjects with atopic dermatitis [\[R\]](#).

However, vitamin E supplementation may not have this effect in patients with perennial allergic rhinitis or in hemodialysis patients with allergy to the dialyzer membranes [\[R\]](#), [\[R\]](#).

15



Kiwifruit

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Eat one to two kiwifruits daily, either as a snack or incorporated into your meals. You can consume them for breakfast, add them to a salad for lunch, or blend them into a smoothie. Continue this practice as a regular part of your diet to gain its nutritional benefits.

Description

Kiwifruit is a vitamin C-rich fruit that supports immune health, digestion, and skin vitality. It's also a good source of dietary fiber, making it a nutritious addition to a balanced diet.

Kiwifruit are technically berries, full of vitamin E, fiber, other minerals and vitamins, particularly vitamin K and C. One kiwifruit provides 1.1 mg of vitamin E or 7%DV.

How it helps

In a placebo-controlled trial of 90 asymptomatic subjects with atopy, supplementation with kiwi extract (PG102) for 8 weeks effectively reduced total IgE levels [\[R\]](#).

16



Sleep for 7+ Hours

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Ensure you allocate enough time in your schedule to achieve a minimum of 7 hours of sleep each night. This might involve going to bed earlier or adjusting your evening routine to promote relaxation and make it easier to fall asleep.

Description

Optimizing sleep involves adopting healthy sleep habits and creating a sleep-conducive environment to ensure restorative and sufficient sleep duration. It supports cognitive function, mood stability, and overall physical health. Most experts recommend getting **at least 7 hours of good-quality sleep each night**.

[Sleep](#) supports your body and mind [\[R, R\]](#). More precisely, sleep helps:

- Support brain health [\[R, R\]](#)
- Maintain a healthy weight and appetite [\[R, R, R\]](#)
- Regulate blood pressure [\[R, R\]](#)
- Balance blood sugar [\[R, R\]](#)

Ways to sleep better include [\[R\]](#):

- Reducing your bright light exposure (screen time) in the evenings
- Sticking to a regular sleep schedule
- Avoiding hunger or large meals before bed
- Avoiding nicotine, caffeine, and alcohol before bed
- Maintaining a sleep area that’s cool, dark, and quiet

How it helps

A study of 4,460 participants associated short sleep (below 6.5 hours/night) with high IgE levels, but only in men [\[R\]](#).

17



Oyster Mushroom

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Consume 600 mg to 1.2 grams of oyster mushroom extract in supplement form daily, ideally divided into two or three doses. Continue this routine for 1 to 2 months to evaluate its effects on your health.

TYPICAL STARTING DOSE

600 mg

Description

Oyster mushrooms (*pleurotus ostreatus*) are a popular and edible species of mushroom grown all over the world, rich in protein, fiber, B-vitamins, vitamin D, potassium, iron, and selenium. They have been used in Chinese medicine for their potential benefits toward immune function. They are eaten today for being nutritious and a source of antioxidants.

How it helps

In a placebo-controlled trial of 175 children with recurrent respiratory infections, taking oyster mushroom beta-glucans (10 mg of pleuran and 10 mg of vitamin C in 1 mL of syrup) for 6 months stabilized the levels of total IgE in serum [R, R].

Oyster mushrooms contain beta-glucans, which are known to modulate the immune system. This can potentially reduce IgE levels.

18



Dietary Omega-3 Fatty Acids

IMPACT

1 / 5

EVIDENCE

1 / 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

Multiple sclerosis patients with high blood omega-3 fatty acids may have lower IgE levels and Expanded Disability Status Scale scores [\[R\]](#).

Omega-3 fatty acids can help modulate the immune response through their anti-inflammatory properties.

19



Functional Relaxation

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Dedicate 15-20 minutes daily to practice functional relaxation techniques, which involve focusing on releasing tension in specific body parts sequentially, usually while lying down or sitting comfortably. This practice can be integrated into your daily routine, preferably in a quiet, distraction-free environment.

TYPICAL STARTING DOSE

20 minutes

Description

Functional relaxation techniques, such as mindfulness and deep breathing exercises, can help reduce stress and improve mental well-being. Incorporating these practices into daily routines may lead to better stress management and overall emotional health.

How it helps

In a non-placebo-controlled trial of 64 adult patients with dust mite allergic asthma, functional relaxation, guided imagery, and their combination lowered IgE levels [\[R\]](#).

Functional relaxation can help manage stress which is known to exacerbate IgE-mediated allergies by causing immune imbalance.

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Avoid Folate Supplements

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Refrain from purchasing or consuming any over-the-counter supplements that contain folic acid or folate. Check the labels of any multivitamins or dietary supplements you currently use to ensure they do not include this vitamin.

Description

Folate supplements are not necessary for most people who eat a healthy diet. In fact, they can be harmful in some cases, such as when they are taken in high doses or by people with certain medical conditions.

How it helps

Genetically higher folate levels may be associated with higher levels of IgE [\[R\]](#).

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.*

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.

