

Histamine Intolerance

DNA Health Report

REPORT CATEGORY —



FOOD SENSITIVITIES

Sample Client

Report date: 03 September 2025

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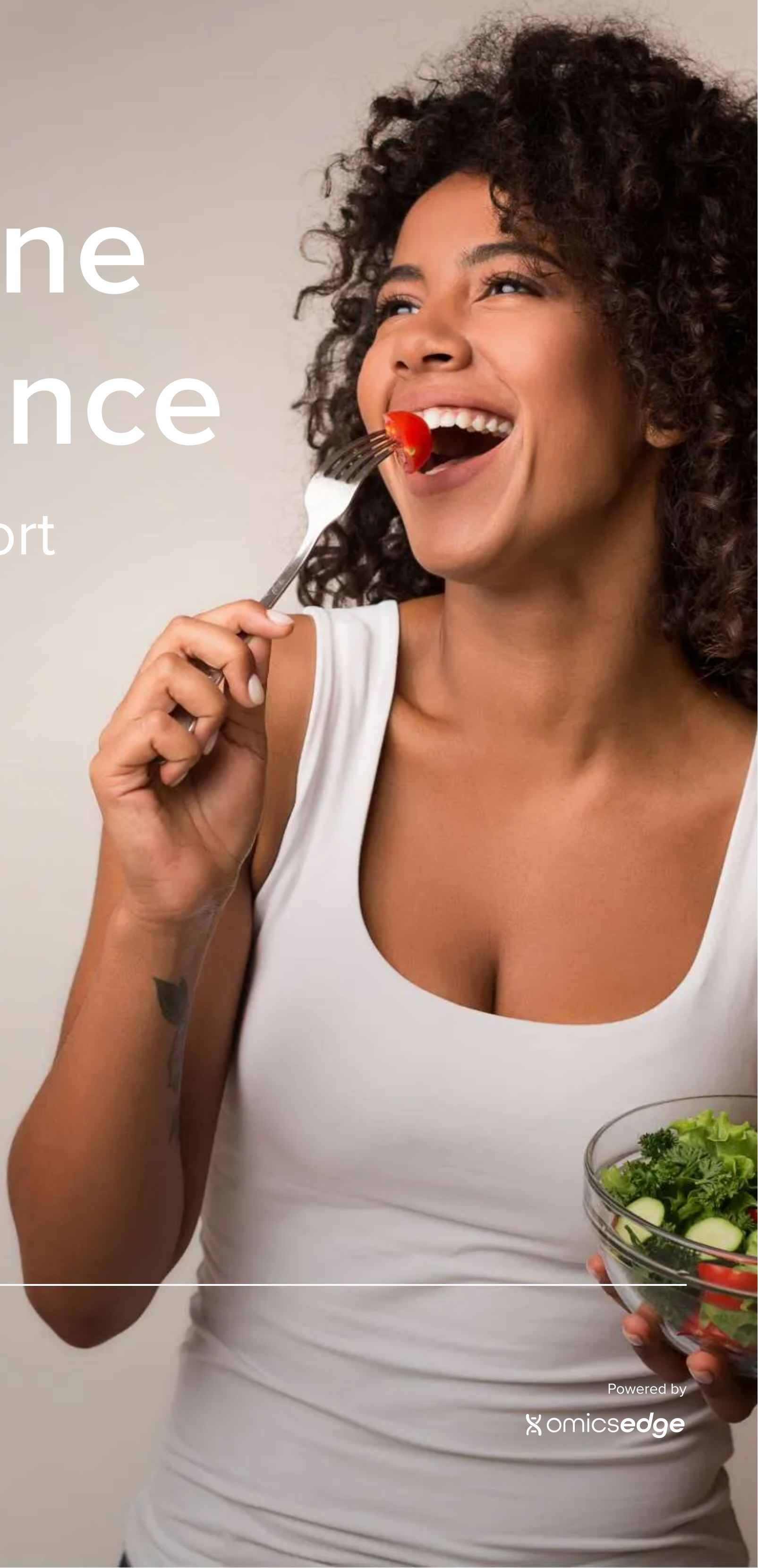


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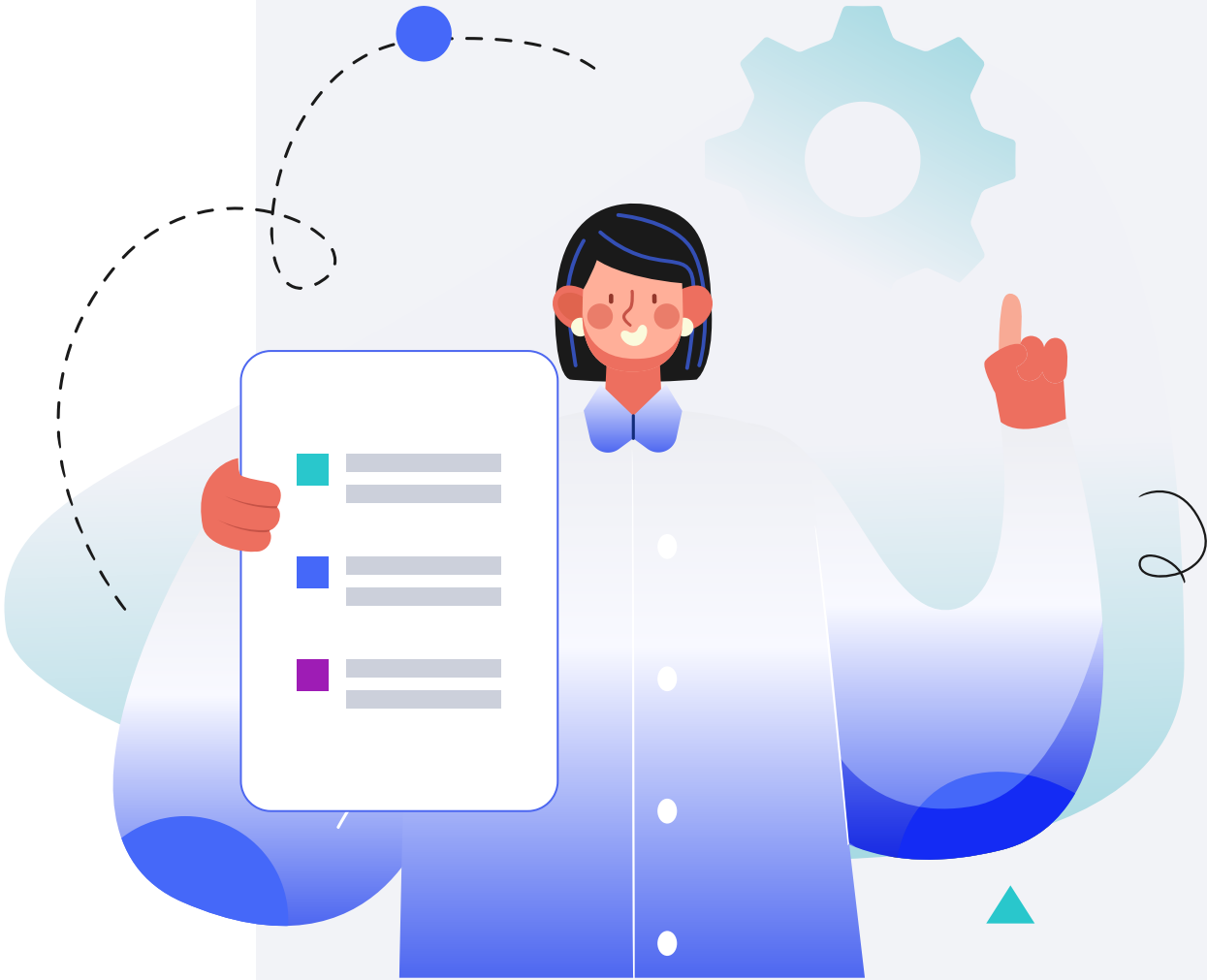
Your recommendations

Personal information

NAME	
Sample Client	
SEX AT BIRTH	
Male	
HEIGHT	
5ft 9"	175.0cm
WEIGHT	
165lb	75.0kg

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.



Introduction

Histamine is an important chemical. Among other roles, it helps your body [\[R\]](#), [\[R\]](#):

- Protect itself from foreign invaders, by activating parts of the immune system
- Stay awake, by signaling certain parts of the brain
- Digest food, by increasing stomach acid

Histamine can be released by immune cells, such as mast cells, and gut bacteria [\[R\]](#), [\[R\]](#).

Histamine can also enter the body through the foods that you eat. Histamine-rich foods include [\[R\]](#), [\[R\]](#):

- Some fish (e.g., mackerel, tuna)
- Fermented foods and drinks (e.g., alcohol, yogurt, sauerkraut, cheese)
- Processed meats (e.g., sausages)
- Some fruits and vegetables (e.g., avocados, tomatoes, eggplant, spinach)

The way the food gets prepared may also play a role. Frying and grilling food may increase histamine levels. Boiling may decrease them [\[R\]](#).

Some people may be intolerant to histamine. In these people, high histamine levels can lead to symptoms similar to those experienced during an allergic reaction. These include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Bloating and abdominal pain
- Diarrhea or constipation
- Dizziness or headaches
- Hives and itchiness
- Stuffy, runny nose
- Itchy, red eyes

Factors Contributing to Histamine Intolerance

Histamine is broken down by two enzymes called **DAO** and **HNMT**. DAO is the main enzyme that breaks down histamine in the gut. HNMT deactivates histamine within cells [\[R, R\]](#).

Scientists currently think that DAO deficiency likely plays a more significant role in histamine intolerance related to dietary histamine. The gene that helps make DAO is called [AOC1](#) [\[R, R\]](#).

On the other hand, HNMT is more responsible for breaking down the histamine created by our body. Different [HNMT](#) gene variants have been linked to histamine-related conditions, such as [\[R, R, R, R, R\]](#):

- Allergies
- Asthma
- Eczema
- Migraines
- ADHD

While genetic variants can influence histamine levels, research suggests that variants alone are probably **not sufficient** to cause full-blown histamine intolerance. Various environmental factors also play a key role [\[R\]](#).

Some of the factors that may contribute to histamine intolerance include [\[R, R, R, R, R, R, R, R\]](#):

- Gut damage and inflammation (e.g., due to inflammatory bowel disease (IBD), gluten sensitivity, lactose intolerance, chemotherapy, etc.)
- Alcohol consumption
- Certain medications, such as some antibiotics and stomach acid blockers
- Underlying imbalances in the gut bacteria



TYPICAL LIKELIHOOD

Typical likelihood of histamine intolerance based on 11 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
AOC1	rs1049793	GC
AOC1	rs1049748	CT
AOC1	rs2071517	AG
AOC1	rs2071514	AG
HNMT	rs1050891	GA
HNMT	rs2071048	CT
AOC1	rs10156191	CC
AOC1	rs2268999	AA
AOC1	rs2052129	GG
HNMT	rs11558538	CC
AOC1	rs1049742	CC

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

- Consumption of foods containing high levels of biological *amines*, chemicals similar to histamine

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	Low-Histamine Diet	2	DAO Enzyme
3	Bifidobacterium Animalis Subsp. Lactis10 billion CFU	4	Vitamin C500 mg
5	Bifidobacterium Longum10 billion CFU	6	Quercetin200 mg
7	Forskolin500 mg		

1



Low-Histamine Diet

IMPACT

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EVIDENCE

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How to implement

Exclude high-histamine foods such as aged cheeses, smoked meats, fermented products like sauerkraut and kombucha, alcohol, and preserved foods. Instead, focus on fresh meats, freshly caught fish, eggs, gluten-free grains, and fresh fruits and vegetables. Implement this diet consistently on a daily basis for at least 4 weeks to observe any improvements in symptoms.

Description

A low-histamine diet can be helpful for individuals with histamine intolerance or allergies, reducing the consumption of high-histamine foods and alleviating symptoms like headaches, hives, and digestive issues.

Histamine is an important chemical. Among other roles, it helps your body [\[R, R\]](#):

- Protect itself from foreign invaders, by activating parts of the immune system
- Stay awake, by signaling certain parts of the brain
- Digest food, by increasing stomach acid

Histamine can also enter the body through the foods that you eat. Histamine-rich foods include [\[R, R\]](#):

- Some fish (e.g., mackerel, tuna)
- Fermented foods and drinks (e.g., alcohol, yogurt, sauerkraut, cheese)
- Processed meats (e.g., sausages)
- Some fruits and vegetables (e.g., avocados, tomatoes, eggplant, spinach)

The way the food gets prepared may also play a role. Frying and grilling food may increase histamine levels. Boiling may decrease them [\[R\]](#).

How it helps

Following a low-histamine diet may help those who experience symptoms after consuming histamine-rich foods [\[R, R\]](#).

This diet typically excludes or limits [\[R, R, R, R, R, R, R\]](#):

- Fermented foods and drinks (especially red wine)
- Fish and meat products, especially if not fresh
- Canned and processed foods
- Chocolate
- Certain vegetables (especially spinach, eggplant, and tomatoes)

The diet may also help with conditions associated with high histamine, such as:

- Hives [\[R\]](#)
- Migraines [\[R\]](#)
- Eczema [\[R\]](#)

Remember it’s more important to avoid foods that trigger your symptoms than to follow any list exactly.

If you suspect a particular food may be triggering your symptoms, try temporarily eliminating it from your diet to see if your symptoms improve or go away. Then, reintroduce it to see if symptoms return. This is the best way to identify sensitivity triggers [\[R, R\]](#).

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DAO Enzyme

IMPACT3 / 5

EVIDENCE2 / 5

How to implement

Take a DAO enzyme supplement before each meal, typically starting with one capsule. If symptoms of histamine intolerance persist, you may increase the dose as directed by the product label or your healthcare provider. Continuous daily use is recommended for those with chronic symptoms.

Description

Diamine oxidase (DAO) enzyme supplements are used by some individuals to potentially reduce symptoms of histamine intolerance by aiding in the breakdown of histamine in the body. These supplements may help manage symptoms like headaches, digestive problems, and skin issues for those with histamine sensitivity.

DAO (diamine oxidase) is the main enzyme that breaks down histamine in the gut. Scientists currently think that DAO deficiency plays a crucial role in histamine intolerance.

DAO enzyme is available as a supplement, and people take it to relieve symptoms related to high histamine levels, such as nausea, headaches, and hives [\[R\]](#), [\[R\]](#).

How it helps

Some people take DAO enzyme supplements to compensate for DAO deficiency and reduce the symptoms of histamine intolerance. However, the research behind this is limited [\[R\]](#).

Supplementation with DAO (10,000 units/mL) for 1 month may **shorten migraine attacks** in people with DAO deficiency [\[R\]](#).

Taking DAO (2 pills, 15 minutes before each meal, for 1 month) may **reduce hives**, especially in those with DAO deficiency [\[R\]](#).

3



Bifidobacterium Animalis Subsp. Lactis

IMPACT

2 / 5

EVIDENCE

2 / 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* (4x10^9 CFU/day for 8 weeks) may reduce the symptoms in people with **pollen allergy** [\[R\]](#).

Probiotic mixes with this species may help with **eczema** [\[R\]](#), [\[R\]](#), [\[R\]](#).

This probiotic may help by **reducing histamine levels** [\[R\]](#).

**CFU (colony forming units) = the number of active bacteria in one probiotic serving*

4



Vitamin C

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 500-2000 mg of vitamin C supplement daily. It can be taken at any time of the day, with or without food, according to personal preference or tolerance.

TYPICAL STARTING DOSE

500 mg

Description

[Vitamin C](#) is an essential nutrient. This means that our bodies can’t produce it on their own, so we have to get it from food or supplements [\[R\]](#).

Foods rich in Vitamin C include: [\[R\]](#)

- Citrus Fruits
- Peppers
- Brussel sprouts
- Kiwi
- Broccoli
- Tomato
- Cantaloupe
- Cauliflower
- Spinach

Vitamin C has antioxidant properties. It supports immunity, heart health, and wound healing [\[R\]](#), [\[R\]](#).

Vitamin C deficiency is called *scurvy*. In the past, many sailors suffered from it [\[R\]](#).

How it helps

Low blood vitamin C levels may cause histamine spikes. Supplementation (1 g/day for 3 days) may restore normal histamine levels [\[R\]](#).

Please note: *Supplementing with vitamin C is linked to a slightly higher risk of kidney stones in men. Talk to your doctor before taking vitamin C* [\[R\]](#), [\[R\]](#).

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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 *B. longum* (5x10^10 CFU/day for 4 weeks) may reduce the symptoms in people with **pollen allergy** [\[R\]](#).

A probiotic mix with this *B. longum*, [B. animalis](#), and [Lactobacillus casei](#) may help with **eczema** [\[R\]](#).

This probiotic may help by blocking histamine function [\[R\]](#).

**CFU (colony forming units) = the number of active bacteria in one probiotic serving*

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Quercetin

IMPACT

1 / 5

EVIDENCE

1 / 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

200 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

Taking quercetin (200 mg/day for 4 weeks) may reduce the symptoms and sleep disturbances in people with **pollen allergy** [\[R\]](#).

Quercetin (1 g/day for 3 days) may also prevent **contact dermatitis** and skin sensitivity to light [\[R\]](#).

Quercetin may help by **preventing histamine release** [\[R\]](#).

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

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Forskolin

IMPACT

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EVIDENCE

1 / 5

How to implement

Take 250 mg of a 10% forskolin extract twice a day. For best results, consume it on an empty stomach about 15-30 minutes before meals. This regimen should be followed daily for at least 12 weeks to evaluate its effectiveness.

TYPICAL STARTING DOSE

500 mg

Description

Forskolin is a natural compound found in the roots of the Indian coleus plant, and it has been studied for its potential to support weight management and heart health.

[Forskolin](#) is a popular supplement and research tool that entered medical practice from Ayurvedic medicine. It is obtained from the dried root of an Indian plant known as *Plectranthus barbatus* or *Coleus forskohlii* [\[R\]](#).

Forskolin is especially popular as a weight loss supplement, but the research behind it is limited [\[R, R, R\]](#).

How it helps

In people with **asthma**, forskolin (10 mg/day) may help prevent attacks [\[R, R\]](#).

Forskolin may help by **preventing histamine release** [\[R\]](#).