

BDNF

Gene Report

REPORT CATEGORIES —



COGNITION



NERVE 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

[BDNF](#) (brain-derived neurotrophic factor) is a component produced mainly in brain cells. It plays many key roles that support your brain’s ability to grow and learn [\[R\]](#), [\[R\]](#).

More precisely, BDNF helps stimulate [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- [Neurogenesis](#): the production of new nerve cells
- [Synaptic plasticity](#): growing new connections between brain cells

In the brain, BDNF is most active in regions responsible for **cognitive function**, including learning and memory. In line with this, low BDNF levels are linked to reduced cognitive function and Alzheimer's disease [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Besides cognition, BDNF is involved in [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Mental health
- Stress response
- Heart health
- Sleep
- Weight Control

Natural ways to boost BDNF include:

- Exercise [\[R\]](#), [\[R\]](#)
- Sleep [\[R\]](#)
- Stress reduction [\[R\]](#), [\[R\]](#)
- Sun exposure [\[R\]](#)

BDNF Genetics

 PERSONALIZED TO GENES

Based on the genetic variants we looked at, you may have slightly lower BDNF levels. This means you may have a slightly higher predisposition for cognitive problems. However, keep in mind that other factors can also influence your BDNF levels and cognition.

The [BDNF](#) gene helps produce BDNF and strongly impacts its levels and activity [\[R\]](#).

A crucial *BDNF* gene variant is [rs6265](#), also known as “[Val66Met](#)”. It may affect BDNF production, storage, and release in brain cells [\[R, R, R, R\]](#).

As a result, the “**T**” (“**Met**”) allele is linked to reduced cognitive function, including [\[R, R, R, R\]](#):

- Learning difficulties
- Poor memory
- Dementia

Besides cognitive effects, this variant may also play a role in [\[R, R, R, R, R, R, R\]](#):

- [Stress and anxiety](#)
- [PTSD](#) and [OCD](#)
- [Weight control](#)
- [Migraines](#)
- [Fatigue](#)

Moreover, the "T" variant may impair response to the antidepressant effects of low-dose ketamine. Nevertheless, this variant may not affect the effectiveness of ketamine for treatment-resistant depression [\[R, R, R, R, R\]](#).

However, you should keep in mind some **important limitations** [\[R, R, R, R, R, R\]](#):

- The effects of this variant on some traits are conflicting.
- Many studies looking into the cognitive effects of this variant are limited to people with mental health problems.



SLIGHTLY LOWER LEVELS

Slightly lower BDNF levels based on the genetic variants we looked at



OF USERS SHARE THE SAME SCORE



You have the same genetic predisposition as 32% of our users.

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
BDNF	rs6265	TC

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

- The link between this variant and some conditions, such as OCD and dementia, may be significant only in women.
- **Your other genetic variants, lifestyle, and environment may also influence your BDNF levels and activity.**

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	Aerobic Exercise (Cardio)	1 hour	2	DHA (Omega-3)	200 mg
3	Omega-3 (Fish Oil)	500 mg	4	Yoga	30 minutes
5	Turmeric		6	Ursolic Acid	150 mg
7	Hemp Seeds		8	Exercise At Least One Hour a Day	1 hour
9	Spend Time in Nature	2 hours	10	Tai Chi	1 hour
11	Cocoa		12	Green Tea	400 mg
13	Blueberry Supplements	500 mg	14	Prebiotics	125 mg
15	Blueberries		16	Curcumin	500 mg
17	Ginkgo	120 mg	18	Acetyl-L-Carnitine	500 mg
19	Resistant Starch	40 g Hi-Maize	20	Mindfulness Meditation	30 minutes
21	Green Tea Extract	250 mg	22	Bacognize (Bacopa monnieri)	300 mg
23	Leafy Green Vegetables		24	Phosphatidylserine	300 mg

1



Aerobic Exercise (Cardio)

IMPACT3 / 5

EVIDENCE4 / 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

Aerobic exercise, like running or swimming, stimulates the production of Brain-Derived Neurotrophic Factor (BDNF), a protein that supports the health and growth of neurons in the brain. This means cardio can enhance cognition, memory, and overall brain function.

A [meta-analysis of 21 studies and 809 participants](#) concluded that **both acute and long-term aerobic exercise increases BDNF levels in healthy subjects, especially in women and those over 60 years old** [\[R\]](#).

In **adolescents**, aerobic exercise **slightly increases BDNF (by 0.28 ng/mL)** according to a [meta-analysis of 6 studies and 407 participants](#) [\[R\]](#).

[Three meta-analyses \(the largest one with 10 studies\)](#) concluded that aerobic exercise **raises BDNF levels in older adults**. However, one of them **only found the increase significant when combined with strength training** [\[R, R, R\]](#).

Aerobic exercise performed for at least 16 weeks also **increases peripheral BDNF levels in patients with mild cognitive decline** according to a [meta-analysis of 9 studies](#) [\[R\]](#).

Similarly, [2 meta-analyses \(the largest one with 18 studies\)](#) found that aerobic exercise **increases BDNF levels in people with neurodegenerative disorders** [\[R, R\]](#).

In **stroke survivors**, a **single session of aerobic exercise increases BDNF levels by 2.49 ng/mL**, while a program of high-intensity aerobic exercise increases it **by 3.42 ng/mL**, according to a [meta-analysis of 17 studies and 687 participants](#) [\[R\]](#).

However, [2 meta-analyses \(the largest one with 6 studies\)](#) found that aerobic exercise **doesn't increase BDNF levels in people with major depressive disorder** [\[R, R\]](#).

2



DHA (Omega-3)

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take an omega-3 supplement containing DHA at a dosage of 200-500 mg daily, preferable with a meal to improve absorption. It's recommended to continue this supplementation as part of your daily regimen to support heart, brain, and joint health.

TYPICAL STARTING DOSE
200 mg

Description

DHA is an omega-3 fatty acid found in fatty fish and algae-based supplements. It is essential for brain health and has been associated with cognitive function, cardiovascular health, and reducing inflammation in the body.

An **EPA/DHA supplement** can be taken to help meet omega-3 fatty acid needs not achieved through diet. Supplement amounts are generally 250-500mg/d though there are no current official recommendations other than for ALA.

How it helps

Two meta-analyses (the largest one with 12 studies and 587 participants) concluded that supplementation with fish oil, including DHA, increases BDNF levels by 0.72 pg/mL or 1.01 µmol/L. Fish oil may be most effective in interventions lasting longer than 10 weeks, at doses below 1500 mg/day, and in individuals older than 50 years old [\[R, R\]](#).

3



Omega-3 (Fish Oil)

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take 1-2 g of omega-3 (fish oil) supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

500 mg

Description

Omega-3 fatty acids are essential fats found in fatty fish like salmon, flaxseeds, and walnuts. They are known for their potential cardiovascular and brain health benefits, including reducing the risk of heart disease and supporting cognitive function.

[Omega-3 fatty acids](#) are some of the healthiest fats we can eat. They help lower inflammation and protect the heart, brain, and eyes. Our bodies produce less omega-3s than we need for optimal health, so it's important to get enough through food or supplements [\[R\]](#), [\[R\]](#), [\[R\]](#).

There are three major types of omega-3s: ALA, EPA, and DHA [\[R\]](#), [\[R\]](#).

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

- Salmon
- Tuna
- Herring
- Sardines

For optimal protection, try to get at least **two servings of fatty fish per week**. Fish oil supplements are available for those who don't eat fish regularly [\[R\]](#).

How it helps

Two meta-analyses (the largest one with 12 studies and 587 participants) concluded that supplementation with fish oil increases BDNF levels by 0.72 pg/mL or 1.01 µmol/L. Fish oil may be most effective in interventions lasting longer than 10 weeks, at doses below 1500 mg/day, and in individuals older than 50 years old [\[R\]](#), [\[R\]](#).

4



Yoga

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Practice yoga for at least 20 to 30 minutes a day, most days of the week. Choose a style that matches your fitness level and goals, and consider attending a class or using online resources to guide your practice.

TYPICAL STARTING DOSE

30 minutes

Description

Yoga is a mind-body practice that combines physical postures, breathing exercises, and meditation. It enhances flexibility, strength, and mental well-being and is used for stress reduction, relaxation, and overall health improvement.

Yoga combines breathing, stretching, and relaxation techniques. Practicing yoga may help [R, R, R]:

- Reduce stress
- Improve fitness
- Lower blood pressure and heart rate
- Manage pain

How it helps

Different yoga programs increased BDNF in several trials of middle-aged volunteers, older adults, and patients with major depressive disorder [R, R, R, R].

5



Turmeric

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

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

Description

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

How it helps

Supplementation with curcumin has been shown to increase BDNF levels in people with:

- PMS [R]
- Schizophrenia [R]
- Major depressive disorder [R]

6



Ursolic Acid

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 150-300 mg of ursolic acid supplement daily, preferably with food to enhance absorption. It can be continued for several weeks to months, but always consult with a healthcare provider before starting any new supplement regimen.

TYPICAL STARTING DOSE

150 mg

Description

Ursolic acid is a naturally occurring compound found in various fruits and herbs, including apple peels and holy basil. It is used for its potential to support muscle growth, reduce inflammation, and promote overall health through its antioxidant and anti-inflammatory properties.

How it helps

In a placebo-controlled trial of 25 older, obese women, supplementation with ursolic acid as an add-on to moderate-to-high intensity resistance circuit training for 8 weeks increased BDNF [\[R\]](#).

Ursolic acid is known for its neuroprotective effects, which may assist in the production of BDNF.

7



Hemp Seeds

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate 1-2 tablespoons of hemp seeds into your daily diet. You can add them to smoothies, sprinkle them on top of salads or yogurt, or mix them into oatmeal. Consistency in daily consumption is key for best results.

Description

Hemp seeds are nutrient-rich and contain essential fatty acids, protein, and minerals. They can be a valuable addition to a balanced diet, supporting overall health and providing a source of plant-based nutrition.

How it helps

In a [placebo-controlled trial of 48 sedentary young men](#), supplementation with hemp seed, both alone and in combination with physical activity, increased BDNF levels [\[R\]](#).

Hemp seeds are rich in omega-3 fatty acids, which may increase BDNF levels.

8

Exercise At Least One Hour a Day

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Dedicate a minimum of 60 minutes to moderate-intensity activities such as brisk walking, swimming, or cycling. Do this most days of the week, aiming for at least 5 days to optimize benefits.

TYPICAL STARTING DOSE

1 hour

Description

[Exercise](#) can do wonders for your health. It can help you lose weight, improve your heart health, boost your mood, and more [\[R\]](#).

There are many ways you can be active. You can walk, run, swim, dance, or play team sports. **Everything counts, and it's never too late to start!**

Try to get at least **60 minutes of moderate physical activity on most days**, including walking. **Getting a mix of cardio (min 150 min/day) and strength training (min 2 times a week) may be optimal.**

How it helps

Regular exercise has been shown to boost BDNF levels which contribute to improved brain health by enhancing the growth and survival of neurons.

9



Spend Time in Nature

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Aim to spend at least 120 minutes per week in natural environments, such as parks, forests, or beaches. This can be divided into short durations throughout the week, for example, 17 minutes per day or longer sessions on weekends.

TYPICAL STARTING DOSE

2 hours

Description

Spending time in nature, also known as ecotherapy or forest bathing, is a wellness practice that involves immersing oneself in natural environments. It offers mental and physical health benefits, including reduced stress, improved mood and eye health, healthier weight, and blood sugar control.

Spending over 2 hours in nature every week is linked to better health and well-being [\[R\]](#).

Spending more time in nature or in urban green areas may help support [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Healthy weight
- Blood sugar control
- Heart health
- Mental health
- Eye health

To get in touch with nature, you can [\[R\]](#), [\[R\]](#):

- Go on a walk
- Go biking or camping
- Garden
- Visit a park

How it helps

Being in nature can reduce stress and increase BDNF levels, aiding in brain cell growth and resilience.

10



Tai Chi

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

TYPICAL STARTING DOSE

1 hour

Description

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

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

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

How it helps

Tai Chi incorporates physical activity and meditation, both of which have been associated with increased BDNF levels.

11



Cocoa

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate 30-60 grams of high-quality dark chocolate (with at least 70% cocoa content) into your daily diet. Enjoy it as a snack or dessert to reap the potential heart health benefits.

Description

[Cocoa](#) comes from the beans of the *Theobroma cacao* tree. It is found any many foods and drinks, and people have also used it as a medicine for thousands of years. The numerous active components of cocoa can help with weight control, fatigue, mood, and digestion, among others.

[Cocoa](#) comes from the beans of the *Theobroma cacao* tree. It’s often used for making chocolate, hot chocolate, and pastries. People have also used it as a medicine for over a thousand years [\[R, R\]](#).

Cocoa contains many active components that likely help [\[R, R, R, R\]](#):

- Control weight
- Lower fatigue
- Boost mood
- Improve digestion
- Balance blood sugar
- Support heart health

Note that pure cocoa is likely a healthier choice than chocolate. If you eat chocolate, choose dark chocolate with more cocoa and less sugar and fat.

How it helps

Cocoa is rich in flavonoids, compounds that stimulate the production of Brain-Derived Neurotrophic Factor (BDNF), a protein essential for brain health. Higher levels of BDNF can help prevent neurodegenerative diseases by promoting brain cell growth and survival.

12



Green Tea

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Consume 400 mg of green tea extract daily. This can be taken in the form of capsules or tablets available that specify the amount of green tea extract. Ensure the supplement is taken according to the product's specific instructions, usually once a day with water.

TYPICAL STARTING DOSE

400 mg

Description

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

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

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

- Heart disease
- Cancer
- Diabetes

How it helps

Green tea boosts brain-derived neurotrophic factor (BDNF), a protein that supports brain health by facilitating brain cell survival and growth. Through its antioxidants, it also helps prevent any damage to your brain cells, effectively reducing the chances of low BDNF levels.

13



Blueberry Supplements

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a blueberry supplement capsule, usually ranging from 500 mg to 1000 mg, once daily. It's best to consume it with a meal to enhance absorption. Continue this regimen daily for at least 4 weeks to observe benefits.

TYPICAL STARTING DOSE

500 mg

Description

Blueberry supplements often contain concentrated extracts of blueberry compounds, including antioxidants like anthocyanins. They are used to support cognitive function, eye health, and overall antioxidant protection.

[Blueberries](#) are enjoyed all around the world for their sweet taste and nutritional benefits. They may support [\[R\]](#):

- Heart health
- Cognitive function
- Normal blood sugar levels

In addition to eating the fruits, people can take different blueberry supplements, such as **blueberry powder or extract**.

How it helps

Blueberries and their supplements contain flavonoids, which are thought to improve brain function, possibly by increasing blood flow and neuroprotection through their antioxidant effects.

14



Prebiotics

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 125 mg of a prebiotic supplement daily. Consistent daily intake is key for maintaining gut health.

TYPICAL STARTING DOSE

125 mg

Description

Prebiotics are primarily plant-based sources of dietary fiber that provide nourishment for beneficial gut bacteria. These foods, like garlic, onions, and asparagus, promote a healthy gut microbiome, support digestion, and enhance nutrient absorption.

Prebiotics are certain fibers 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** [\[R, R\]](#).

Some natural sources of prebiotics include [\[R, R\]](#):

- Whole grains
- Bananas
- Onions
- Soybeans

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

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

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

How it helps

Prebiotics boost the growth of beneficial gut bacteria which enhance the production of Brain-Derived Neurotrophic Factor (BDNF), a protein that supports brain health. Therefore, increasing intake of prebiotics may help enhance BDNF levels and prevent related neurological issues.

15



Blueberries

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate a half to one cup of fresh or frozen blueberries into your daily diet. You can add them to your breakfast cereal, smoothies, or enjoy them as a snack on their own.

Description

Blueberries are a nutritious fruit packed with antioxidants, vitamins, and fiber. They are known for their potential to support brain health, reduce the risk of chronic diseases, and promote overall well-being.

[Blueberries](#) are enjoyed all around the world for their sweet taste and nutritional benefits. They may support [\[R\]](#):

- Heart health
- Cognitive function
- Normal blood sugar levels

How it helps

Blueberries in particular are known for bioactive compounds that might upregulate BDNF.

How to implement

TYPICAL STARTING DOSE

500 mg

Description

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

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

How it helps

Curcumin, a compound found in turmeric, is believed to increase levels of a protein called Brain Derived Neurotrophic Factor (BDNF). Higher BDNF levels can enhance brain health and may help prevent brain conditions.

17



Ginkgo

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

TYPICAL STARTING DOSE

120 mg

Description

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

According to limited evidence, ginkgo leaf extract may help with [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

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

How it helps

Ginkgo biloba is known for its potential cognitive benefits. It may aid by improving circulation and acting as an antioxidant.

18



Acetyl-L-Carnitine

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 500-1,000 mg of Acetyl-L-Carnitine per day, split into 2 or 3 doses, with or without food. Joe prefers taking 500 mg in the morning. It can be taken indefinitely for chronic conditions or for a period of several months for acute concerns.

TYPICAL STARTING DOSE
500 mg

Description

Carnitine is a protein building block (amino acid). It comes in many forms, such as acetyl-L-carnitine. Acetyl-L-carnitine may help with nerve damage and mood problems.

Carnitine is a protein building block (amino acid). It comes in many forms, such as acetyl-L-carnitine [R, R, R].

Acetyl-L-carnitine may help with [R, R, R]:

- Nerve damage
- Mood problems
- Cognitive decline

Doctors are also studying its potential effect on drug addiction [R].

How it helps

Acetyl-L-Carnitine may benefit cognitive function due to its role in fatty acid metabolism in mitochondrial membranes, potentially impacting neural metabolism and energy levels.

19



Resistant Starch

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate 40g of Jo's resistant starch into your daily diet. This can be done by adding it to smoothies, yogurt, or baked goods. Ensure to spread the intake throughout the day for better tolerance.

TYPICAL STARTING DOSE

40 g Hi-Maize

Description

Resistant starch is a type of starch that resists digestion in the small intestine, making it a prebiotic fiber that can benefit gut health. It can be found in foods like green bananas, legumes, and certain grains.

[Resistant starch](#) is starch that doesn't get digested in the small intestine [\[R\]](#), [\[R\]](#).

Some types of resistant starch include [\[R\]](#):

- **Type 1** occurs naturally in foods such as whole grains
- **Type 2** can be isolated from foods such as corn and green banana
- **Type 3** is created during the cooking and cooling process of starchy foods like potatoes

Resistant starch doesn't increase blood sugar like typical digestible starches do [\[R\]](#), [\[R\]](#).

Instead, it feeds good bacteria in the colon that [\[R\]](#), [\[R\]](#):

- Support healthy gut function
- Support immunity
- Reduce inflammation

How it helps

Resistant starches act as food for gut bacteria, which then produce short-chain fatty acids that can increase the brain-derived neurotrophic factor (BDNF). Increased BDNF levels can aid in brain health and decrease the risk of neurological conditions.

20



Mindfulness Meditation

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Practice mindfulness meditation for 10-20 minutes daily. Find a quiet, comfortable place to sit or lie down, then focus on your breath, observing thoughts and sensations without judgment. Consistency is key, so try to incorporate it into your daily routine, perhaps in the morning or before bed.

TYPICAL STARTING DOSE

30 minutes

Description

Mindfulness meditation involves focused attention on the breath or a specific point of focus to cultivate mindfulness and reduce stress. Regular meditation practice is associated with improved mental clarity, emotional regulation, and overall well-being.

How it helps

Practicing mindfulness meditation can increase BDNF production, potentially supporting cognitive functions and mental wellbeing.

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Green Tea Extract

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

TYPICAL STARTING DOSE

250 mg

Description

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

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

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

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

How it helps

Green tea catechins such as EGCG are antioxidants that might protect the brain by reducing oxidative stress and potentially improving cognitive functions.

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Bacognize (Bacopa monnieri)

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take bacopa as a supplement in a dose of 300-450 mg per day, ideally with food to enhance absorption. It should be taken daily for at least 4-6 weeks to begin noticing benefits in cognitive function and stress reduction.

TYPICAL STARTING DOSE

300 mg

Description

Bacopa, also known as Brahmi, is an herb traditionally used in Ayurvedic medicine to support cognitive function and memory. It is believed to have neuroprotective properties and is used in herbal supplements for mental well-being.

[Bacopa](#) (*Bacopa monnieri*) grows as a weed in the rice fields of East Asia and the US [\[R\]](#).

Bacopa is used in Ayurveda (Indian traditional medicine) to support cognition [\[R\]](#).

Note that bacopa is fat-soluble. This means that **taking it with a fatty meal should help you absorb it better** [\[R\]](#).

How it helps

Bacopa monnieri has been traditionally used to support cognitive functions. It may support memory formation and neural health.

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Leafy Green Vegetables

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate at least one serving of leafy green vegetables, such as spinach, kale, or Swiss chard, into your diet daily. This can be done by adding them to salads, smoothies, or as a side dish to your meals.

Description

Leafy green vegetables like spinach and kale are packed with vitamins, minerals, and antioxidants. Incorporating them into your diet can promote overall health by providing essential nutrients, supporting digestion, and reducing the risk of chronic diseases like heart disease and certain cancers.

Leafy green vegetables, also called leafy greens, or greens, are edible plant leaves, which can include stalks and shoots as well. Common examples include: lettuce, spinach, kale, chard, endive, and fennel.

Leafy greens contain a host of vitamins and minerals, as well as fiber. Most of them are a particularly good source of vitamin K.

How it helps

Leafy greens have a variety of nutrients that may support brain health and contribute to increasing BDNF.

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Phosphatidylserine

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 100 mg of phosphatidylserine three times daily with meals. Continue this regimen for up to 6 months to evaluate its effectiveness.

TYPICAL STARTING DOSE

300 mg

Description

Phosphatidylserine is a naturally occurring phospholipid found in cell membranes, primarily in animal-based sources such as meat and fish. It is commonly used as a dietary supplement to potentially support cognitive function and memory, as well as age-related cognitive decline and improving focus and mental clarity.

[Phosphatidylserine](#) is a major component of all cell membranes. It’s found in high amounts in the brain, and it helps support brain function.

People use phosphatidylserine as a supplement to improve mental focus, memory, and mood.

How it helps

Phosphatidylserine is a component of the cell membrane that is crucial for maintaining cellular function in the brain and may help support cognitive functions.