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# 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.

## Summary

Neurodegenerative diseases involve the progressive loss of nerve cell function, influenced by complex genetic factors. This report examines genetic variants associated with cognitive decline and motor system disorders, providing insights into disease risk and progression patterns. Understanding these genetic predispositions can inform preventive strategies and management approaches in consultation with healthcare providers.

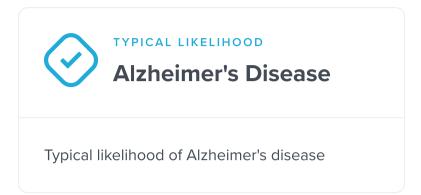
## This summary report contains:

- 6 **Genetic Results**
- **50** Recommendations

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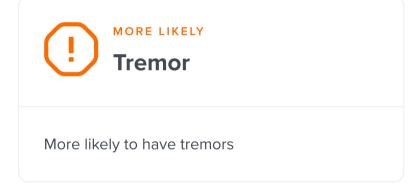
## **Overview of Your Results**

## Cognitive & Memory Disorders

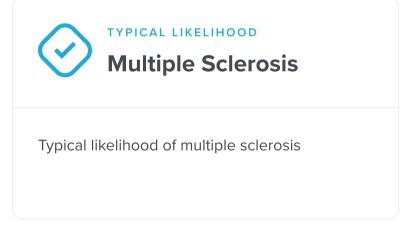


## **Motor System Disorders**









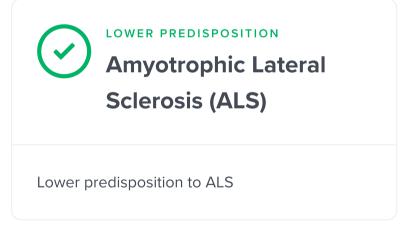


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## Recommendations Overview

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.

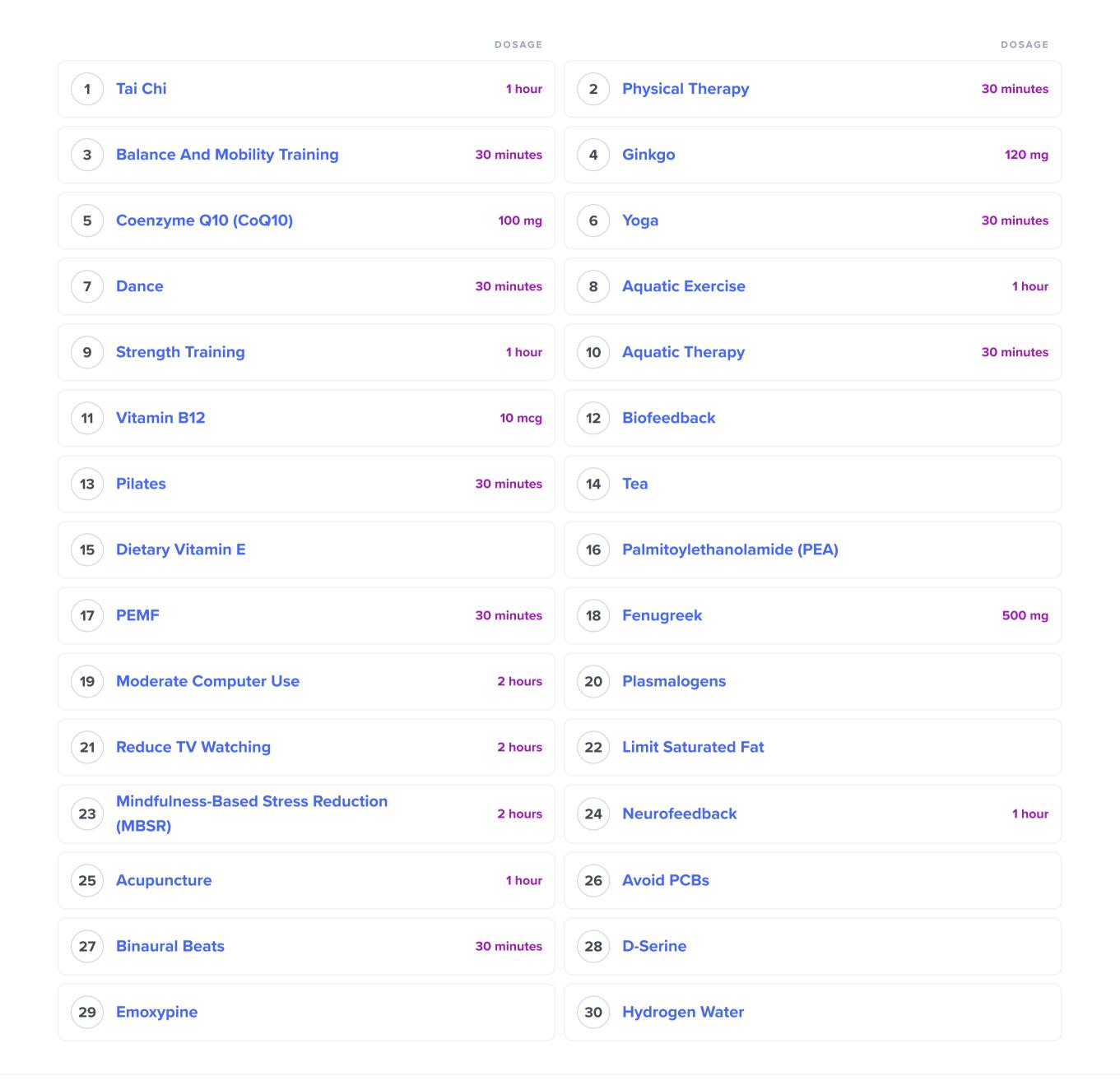


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31 Laughter Yoga	30 minutes	32 Licorice Root	<b>750</b> mg
33 N-acetylcysteine (NAC)	1200 mg	34 Nicotinamide Riboside (NR)	250 mg
35 Pycnogenol	100 mg	36 Pyridoxine (Vitamin B6)	<b>50</b> mg
37 Sarcosine	2 g	38 Ubiquinol	100 mg
39 Walking Meditation	30 minutes	40 Guided Imagery	30 minutes
41 Glutamine	<b>5</b> g	42 Avoid Betaine (TMG) Supplements	
43 Avoid Leucine Supplements		44 Choline Supplements	425 mg
45 Dietary Iron		46 Isoleucine	20 g
47 L-Carnitine	1 g	48 L-Phenylalanine	
49 Vitamin E	<b>200</b> iu	50 Acetyl-L-Carnitine	500 mg

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## Your Results in Details





Typical likelihood of Alzheimer's disease



## **Cognitive & Memory Disorders**

Genetic factors play a crucial role in cognitive decline and memory loss, particularly in Alzheimer's disease. This section examines genetic variants that influence neural degeneration and cognitive function, offering insights into individual risk factors for age-related cognitive disorders.

## **Alzheimer's Disease**

#### **Key Takeaways:**

- About 60-80% of differences in people's chances of getting
   Alzheimer's disease may be due to genetics.
- Alzheimer's disease can wipe out cognitive abilities.
- **5.8 million** Americans have Alzheimer's disease, the vast majority of them being over 75 years of age.
- Other risk factors include old age, female sex, air pollution, alcohol abuse, and obesity.
- This report doesn't take into account the APOE-e4 variant.

Some of the risk factors for Alzheimer's include [R]:

- Being over the age of 75
- Being female
- High exposure to air pollution
- Poor sleep patterns
- Alcohol abuse
- Sedentary lifestyle
- Low social interaction
- Low involvement in mentally stimulating activities

The following conditions may contribute to Alzheimer's disease [R]:

- Mild cognitive impairment
- Head trauma
- Obesity
- Diabetes
- High cholesterol
- Down syndrome

About **60-80**% of differences in people's chances of getting Alzheimer's disease may be due to genetics [R].

Genetically high fasting insulin, ApoB, and neutrophil levels may be causally associated with a higher risk of Alzheimer's disease [R, R, R, R].

In contrast, genetic predisposition to high total testosterone and glucosamine supplement use may be causally associated with a



Typical likelihood of Alzheimer's disease based on 1,049,157 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CHRM2	rs <b>6962027</b>	TT
PICALM	rs3851179	тт
GSK3B	rs334558	AG
CD55	rs3818361	GA
POLR2E	rs12151021	AA
HLA-DRB1	rs9271192	AC
CD55	rs <b>679515</b>	СТ
ECHDC3	rs <b>7912495</b>	GG
SORT1	rs11102972	тс
CLNK	rs6846529	СТ
COX7C	rs62374257	СТ
CPSF3	rs <b>72777026</b>	AG
WDR81	rs35048651	IT
IGHG3	rs <b>7157106</b>	GA
LILRB5	rs <b>587709</b>	СТ
SNX1	rs3848143	GA
GC	rs2282679	GT
CLU	rs11136000	СС
APOE	rs <b>429358</b>	тт
TREM2	rs <b>75932628</b>	СС

lower risk [R, R].

**Please note:** Genetic models analyzing a lot of variants (PRS models) usually don't take into account variants with large effects, such as <u>APOE-e4</u>. This variant is by far the strongest genetic factor for Alzheimer's disease. If you carry it, your predisposition to Alzheimer's disease is higher, regardless of your result for this report.

GENE	SNP	GENOTYPE
PTGS2	rs20417	GG
RELN	rs <b>528528</b>	СС
SETD7	rs535347112	СС
BDNF	rs <b>56164415</b>	GG
SYPL2	rs17646665	AA
NGFR	rs2072446	СС
SLC20A1	rs1800587	GG
TREML1	rs60755019	AA
SORL1	rs11218343	TT
NCK2	rs143080277	тт
TREM2	rs143332484	СС
SORT1	rs141749679	TT
GPX4	rs3764650	TT
ABI3	rs616338	СС
WWC1	rs17070145	TT
ATP8B4	rs138799625	СС
PILRB	rs1476679	TT
BIN1	rs <b>744373</b>	AA
SORL1	rs <b>74685827</b>	TT
BIN1	rs6733839	СС
MME	rs61762319	AA
SHARPIN	rs34173062	GG
FOXF1	rs16941239	тт
C1QTNF4	rs10838725	тт
DBNDD1	rs56407236	GG
APH1B	rs117618017	СС
CD2AP	rs9349407	GG
STYX	rs17125924	AA
RASGEF1C	rs113706587	GG
OTULIN	rs112403360	TT

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



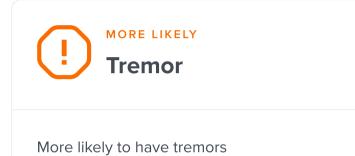


## **Motor System Disorders**

Motor system disorders involve genetic factors affecting nerve cell function and muscle control. This section explores genetic variants associated with conditions like Parkinson's disease, ALS, and multiple sclerosis, providing understanding of personal risk factors for these movement-related neurological conditions.



More likely to get Parkinson's disease







Typical likelihood of multiple sclerosis



Lower predisposition to ALS

## Parkinson's Disease

#### **Key Takeaways:**

- About **20-40**% of the differences in people's chances to develop Parkinson's disease may be due to genetics.
- Other risk factors include age (over 60), being male, and toxin exposure.
- PD is an underdiagnosed disease, with about 90,000 diagnosed each year in the U.S.
- PD has no cure, but is managed better the earlier it is diagnosed.
- If you are at high genetic risk be aware of symptoms and talk to your doctor immediately if you notice any.

The causes of Parkinson's disease are not fully understood, but it likely involves a combination of **genetic and environmental factors**. These factors reduce the brain's ability to produce certain chemicals, mainly **dopamine** [R].

About **20-40**% of the differences in people's chances of developing Parkinson's disease may be due to **genetics**. Approximately **15**% of cases have a **family history** of the condition [R, R, R].

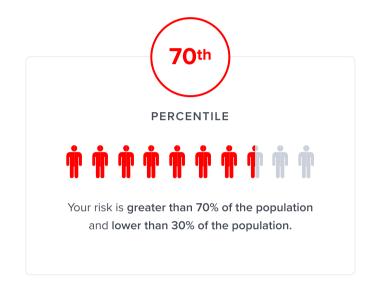
Genetically high betaine and choline levels may be causally associated with Parkinson's disease, while genetically high levels of DHA may be causally associated with a lower risk [R, R].

Beyond genetics, other risk factors for Parkinson's include [R]:

- Age: typically over 60
- Sex: men are at a higher risk
- Exposure to toxins like pesticides



More likely to get Parkinson's disease based on 1,031,982 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
MAPT	rs17649553	СС
LINGO2	rs10812774	тс
STK39	rs1474055	тт
HLA-DQA2	rs9275326	СС
MCCC1	rs12637471	GG
SNCA	rs356182	AG
TMEM175	rs <b>34311866</b>	тс
FYN	rs <b>943437</b>	AA
TMEM229B	rs1555399	тт
COQ8A	rs4653767	тт
MED13	rs6416935	GG
LRRK2	rs <b>76904798</b>	тс
NDUFAF2	rs2694528	AC
NUCKS1	rs823118	тс
TMEM163	rs6430538	СТ
VPS37B	rs11060180	AG
RIT2	rs12456492	AG
ZDHHC2	rs <b>591323</b>	GA
GPNMB	rs199347	AG
GCH1	rs11158026	тс

GENE	SNP	GENOTYPE
IGSF9B	rs329648	тс
FAM47E	rs <b>6812193</b>	тс
SH3GL2	rs13294100	GT
GALC	rs8005172	СТ
LSM7	rs62120679	тс
BCKDK	rs14235	AG
DLG2	rs3 <b>793947</b>	GA
DRD1	rs686	GA
ADAM15	rs35749011	GG
LINGO2	rs <b>7033345</b>	тт
BAG3	rs117896735	GG
ITIH1	rs143918452	GG
CAMK2D	rs78738012	тт
SIPA1L2	rs10797576	СС
BST1	rs11724635	AA
ZSCAN31	rs <b>9468199</b>	GG
ZSCAN31	rs17767294	AA
TBC1D5	rs4073221	тт
C2CD4A	rs2414739	GG
TOX3	rs4784227	СС
FDFT1	rs2740594	GG
GBF1	rs2296887	тт
MAP4K4	rs34043159	тт

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

## **Tremor**

The severity of a tremor can vary, from a slight quiver that is essentially a cosmetic concern to a more severe disruption that can impair one's ability to perform daily tasks. Tremor can be classified by its appearance and cause or its origin. Some forms appear to be inherited and run in families, while others have no known cause.

There are several forms of tremor, including essential tremor, parkinsonian tremor, and dystonic tremor, each with distinctive features and patterns. Treatment is tailored to the type of tremor and may include medications, physical therapy, or surgical interventions such as deep brain stimulation.



## More likely to have tremors based on 26,737 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
CNTNAP5	rs142107007	СС
HDAC4	rs <b>74641417</b>	GG
FBLN5	rs2249946	тт
CRK	rs <b>58143069</b>	GG
VEPH1	rs703174	СС
DPP6	rs2035847	GG
/	rs1945016	GG
/	rs1482967	GG
ZNF385D	rs9867308	GG
PRCP	rs949247	СС
BACE2	rs9980363	тс
FOXN3	rs60549348	GC
/	rs13262570	тс
ZNF85	rs <b>8109731</b>	СТ
SYNM	rs2665082	CA
MICB	rs3094085	AG
SUPT4H1	rs <b>7221205</b>	GA
DHRS13	rs4794836	CG
DSTYK	rs868512	AC
RANBP17	rs111455002	тт

GENE	SNP	GENOTYPE
LSAMP	rs <b>72965564</b>	СС
CCNH	rs <b>710365</b>	тт
PARD3B	rs62179999	AA
OTX1	rs <b>75768872</b>	тт
OTX1	rs17432566	AA
OTX1	rs <b>77548173</b>	тт
FAM222B	rs12949907	тт
PRSS3	rs10814028	тт
PTGFRN	rs1127215	тт

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

## **Ataxia**

In addition to physical symptoms, ataxia can have emotional and social impacts. It may lead to a gradual loss of independence, as individuals with the condition could require assistance with daily tasks.

Diagnosing ataxia often involves a combination of medical history evaluation, neurological examinations, genetic testing (if a hereditary component is suspected, despite non-genetic causes), and imaging studies to examine brain structure. There is currently no cure for ataxia, but treatment options such as physical therapy, speech therapy, and occupational therapy can help manage symptoms and improve quality of life.



More likely to have ataxia based on 22,532 genetic variants we looked at

## **Multiple Sclerosis**

About 50% of the differences in people's MS rates may be due to **genetics** [R].

While no single gene has been identified as the cause of MS, certain genetic variants have been linked to an increased risk of the disease. Having a close family member with MS can increase one's risk, suggesting a hereditary component.

Moreover, a genetically high leukocyte count may be causally associated with MS susceptibility [R].

Other factors that might increase the risk of developing multiple sclerosis include:

- Age: MS is most commonly diagnosed in people between the ages of 20 and 50.
- Sex: Women are about two to three times more likely than men to develop MS.
- Certain infections, like Epstein-Barr virus.
- Climate: MS is more common in countries with temperate climates.
- Autoimmune diseases: If you have thyroid disease, type 1 diabetes, or inflammatory bowel disease, you might have an increased risk of developing MS.
- Smoking.



Typical likelihood of multiple sclerosis based on 1,019,187 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
HLA-DQA2	rs3129934	СТ
HLA-DRB5	rs3135388	GA
EBPL	rs9591325	тт
IL2RA	rs2104286	тт
RBM17	rs11256593	тт
TYK2	rs34536443	GG
TAPBPL	rs12832171	СС
JAK1	rs <b>72922276</b>	GG
RGS1	rs1323292	AA
RTEL1-TNFRSF6B	rs6742	СС
RMI2	rs34947566	СС
MAF	rs17724508	тт
SP140	rs35540610	СС
CD58	rs10801908	тс
IL2RA	rs12722559	СС
IRF8	rs35703946	GG
TGFBR3	rs12133753	СС
SYPL1	rs <b>73414214</b>	СС
IL7R	rs689 <b>7</b> 932	СС
BCL10	rs35486093	GA

GENE	SNP	GENOTYPE
CD5	rs17824933	CG
TNFSF14	rs1077667	тс
POGLUT1	rs <b>9843355</b>	AG
EOMES	rs <b>438613</b>	тс
LTBR	rs1800693	СТ
ELMO1	rs60600003	GT
PRXL2B	rs6670198	СТ
TAGAP	rs1738074	СТ
ETV7	rs1076928	тс
IMMP2L	rs <b>868824</b>	СТ
STAT3	rs2293152	GC
TNFRSF1A	rs4149584	СС
CBLB	rs9657904	СС
APOA5	rs2727790	GG
ETV6	rs <b>73277163</b>	AA
PHGDH	rs12094392	тт
ERMP1	rs2150702	AA
BACH2	rs <b>72928</b> 038	GG
PTGER4	rs11749040	GG
GTDC1	rs <b>7285554</b> 0	AA
IL22RA2	rs62420820	GG
RPAP2	rs <b>58394161</b>	тт
EVI5	rs11809700	СС
THRA	rs883871	GG
IL7R	rs10063294	AA
STAT3	rs <b>744166</b>	AA

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

## **Amyotrophic Lateral Sclerosis** (ALS)

Please note: Your genetic predisposition in this report is measured relative to the rest of the population. Even if your predisposition is higher, your absolute risk of ALS is still very low because it's a very rare condition. The vast majority of people with higher genetic predisposition won't develop ALS.

Most cases of ALS are sporadic, meaning they occur without a clear cause. However, about 5-10% of cases are familial, implying **genetic inheritance**. Researchers have identified several genes associated with ALS, with C9orf72 and SOD1 being the most well-known [R].

Genetically high leukocyte count and ApoB levels may be associated with a lower risk of ALS [R, R].

Several risk factors are associated with ALS, such as:

- Age: more common between the ages of 40 and 70
- Being a male
- Exposure to heavy metals or pesticides



## Lower predisposition to ALS based on 7,814 genetic variants we looked at

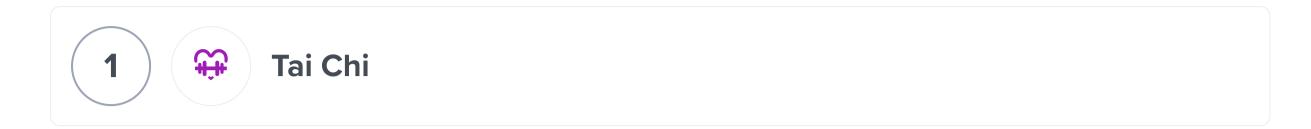
Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
UNC13A	rs12608932	CA
TLE3	rs <b>1971791</b>	AG
ZNF142	rs <b>2303565</b>	СТ
CNOT9	rs <b>7607369</b>	AG
CENPV	rs <b>7477</b>	AA
KIAA0513	rs8056742	тт
TSNARE1	rs4917300	СС
C9ORF72	rs3849942	СС
TSC22D1	rs9533799	СС
LAMA3	rs11082762	GG

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

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## Recommendations Details



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.

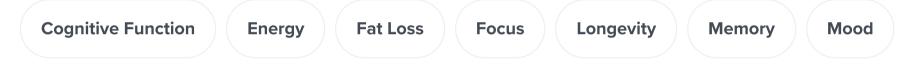
TYPICAL STARTING DOSE

1 hour

**Helps with these Symptoms & Conditions:** 

Cognitive Decline

**Helps with these Goals:** 



Helps with these DNA Risks:



## How it helps



IMPACT EVIDENCE 3/5

Regular exercise is linked to a 25% lower risk of Parkinson's disease [R].

Tai chi may be a good exercise type for people with Parkinson's disease. It may help them improve [R, R, R, R, R, R, R, R, R, R, R]:

- Motor symptoms
- Muscle strength
- Balance and flexibility
- Mood and quality of life

However, tai chi may not improve gait and cognition [R, R, R, R].



Tai Chi involves gentle, flowing movements that can enhance balance and coordination in individuals with ataxia. Its slow and controlled movements are particularly beneficial for improving stability and reducing the risk of falls.

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IMPACT EVIDENCE 0/5 0 0 0 / 5

Tai Chi involves slow, controlled movements and can improve balance and motor control. This physical discipline has been shown to help with neuromuscular coordination, potentially reducing tremor severity.





## **Physical Therapy**

Attend physical therapy sessions 2-3 times per week for a duration of 4-6 weeks, depending on your specific condition and the advice of your healthcare provider. Each session typically lasts about 30-60 minutes, where a licensed therapist will guide you through targeted exercises, stretches, and possibly other treatments like electrical stimulation or ultrasound therapy.

TYPICAL STARTING DOSE 30 minutes

#### **Helps with these DNA Risks:**



**Parkinson's Disease** 



## How it helps



#### **Parkinson's Disease**

EVIDENCE			
	4	/	5

Most health experts say that people with Parkinson's disease may benefit from physical therapy. It may help improve [R, R, R, R, R, R, R]:

- Motor symptoms
- Balance and gait
- Participation in daily activities
- Mental health and quality of life

#### Helpful options include:

- Massage [R, R]
- Exercise therapy [R]
- Alexander Technique [R, R, R, R]
- Aguatic physical therapy (hydrotherapy) [R, R, R]



## **Ataxia**

IMPACT 0/5 **EVIDENCE** 0/5

Physical therapy provides tailored exercises that focus on improving movement control, coordination, and balance for ataxia patients. It can also help prevent joint stiffness and maintain muscle strength.





## **Balance And Mobility Training**

Incorporate balance and mobility exercises into your routine three to four times per week. Each session should last approximately 30 minutes and include activities such as standing on one foot, walking heel to toe, and tai chi or yoga. Start with simple exercises and gradually increase difficulty as your balance improves.

TYPICAL STARTING DOSE

30 minutes

#### **Helps with these Goals:**

**Cognitive Function** 

#### **Helps with these DNA Risks:**





## How it helps



#### Parkinson's Disease



eVIDENCE 3/5

A meta-analysis of 22 studies and 901 patients with Parkinson's disease found balance training, especially if based on virtual reality, effective at improving balance and mobility [R].

Balance and mobility training can reduce the risk of falls by improving steadiness in individuals with Parkinson's.

## (!)

#### **Ataxia**

IMPACT 0 / 5

EVIDENCE 0/5

These exercises specifically target balance and mobility challenges faced by individuals with ataxia. Training can lead to improvements in walking, posture, and daily activities by strengthening the muscles and enhancing coordination.





## **Ginkgo**

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.

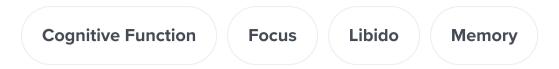
TYPICAL STARTING DOSE

120 mg

**Helps with these Symptoms & Conditions:** 

**Cognitive Decline** 

#### **Helps with these Goals:**



#### **Helps with these DNA Risks:**



## **How it helps**



## Parkinson's Disease

IMPACT EVIDENCE 0/5

Ginkgo may reduce the risk of tardive dyskinesia more in people with certain gene variants [R].



#### **Ataxia**

IMPACT EVIDENCE 0/5

Ginkgo biloba has shown potential in improving ataxia symptoms. It helps by enhancing blood flow to the brain, which can improve cognitive function and potentially reduce some symptoms related to ataxia. Increased blood flow supports healthier neural functioning, which is crucial in conditions affecting motor control and coordination.



IMPACT EVIDENCE 0/5

Ginkgo Biloba has been studied for its potential to improve blood circulation, which could be beneficial for some types of tremor. Better blood flow can enhance oxygen and nutrient delivery to nerve cells, possibly helping to stabilize nerve cell function and reduce tremors.



## Coenzyme Q10 (CoQ10)

Take a 100 mg Coenzyme Q10 (CoQ10) supplement once daily with a meal that contains fat for better absorption.

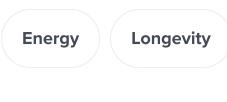
TYPICAL STARTING DOSE

100 mg

**Helps with these Symptoms & Conditions:** 

Artery Hardening

**Helps with these Goals:** 



Helps with these DNA Risks:



## How it helps



#### **Parkinson's Disease**

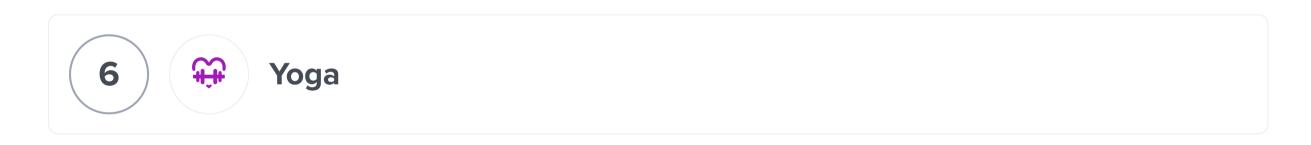
IMPACT EVIDENCE 2/5

A Cochrane review of 4 trials and 452 Parkinson's disease patients concluded that supplementation with coenzyme Q10 (1200 mg/day for 16 months) improves activities of daily living. However, 2 meta-analyses (the largest one with 8 studies) found coenzyme Q10 ineffective at improving motor symptoms [R, R, R].

Coenzyme Q10 may help by preventing oxidative damage to the neurons that are typically affected in Parkinson's.



CoQ10 supplementation has been studied for its role in neuroprotective activities and energy metabolism improvements. In conditions like ataxia, where mitochondrial dysfunction is a feature, CoQ10 can help by improving energy production and reducing oxidative damage.



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.

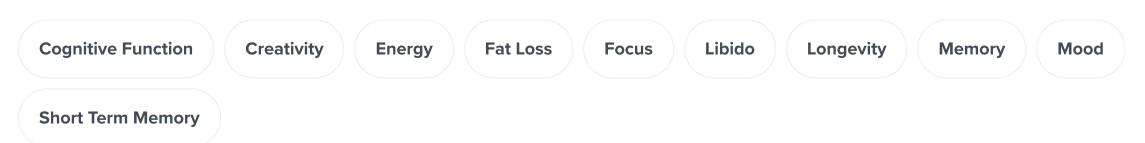
TYPICAL STARTING DOSE

30 minutes

**Helps with these Symptoms & Conditions:** 



**Helps with these Goals:** 



**Helps with these DNA Risks:** 



## **How it helps**



### **Parkinson's Disease**

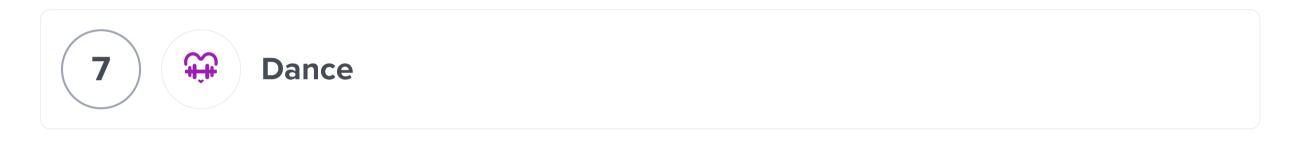
IMPACT EVIDENCE 4/5

Regular exercise is linked to a 25% lower risk of Parkinson's disease [R].

Yoga is a great exercise type for people with Parkinson's disease. It may help them improve [R, R, R, R, R]:

- Motor symptoms
- Flexibility and balance
- Anxiety and depression
- Quality of life

Yoga may be at least as effective as other types of exercise [R, R].



Engage in dance activities for at least 30 minutes, three times per week. You can choose any form of dance you enjoy, such as ballroom, hip hop, or salsa, and you can dance at home, in a studio, or in a group class setting.

TYPICAL STARTING DOSE

30 minutes

**Helps with these Symptoms & Conditions:** 

Cognitive Decline

**Helps with these Goals:** 

Creativity Fat Loss Mood Strength

**Helps with these DNA Risks:** 



## **How it helps**



Parkinson's Disease

IMPACT 4/5

EVIDENCE 5/5

Regular exercise is linked to a 25% lower risk of Parkinson's disease. The risk may be 40% lower in those who practice intense exercise [R, R].

- Motor symptoms
- Balance and gait
- Movement
- Cognition and mood





## **Aquatic Exercise**

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

1 hour

#### **Helps with these Symptoms & Conditions:**

**Artery Hardening** 

**Helps with these Goals:** 

**Fat Loss** 

Strength

#### **Helps with these DNA Risks:**



## **How it helps**



#### Parkinson's Disease

MPACT 4 / 5

EVIDENCE 4/5

Regular exercise is linked to a 25% lower risk of Parkinson's disease. The risk may be 40% lower in those who practice intense exercise [R, R].

Aquatic exercise may reduce motor symptoms of Parkinson's disease. According to some studies, it may even be more effective than land-based exercise at improving [R, R, R]:

- Balance and movement
- Fear of falling
- Quality of life

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Engage in strength training exercises, such as weight lifting or bodyweight exercises, for 60 minutes per session, 2 to 3 times per week. Ensure you work all major muscle groups and rest each muscle group for at least 48 hours before exercising it again.

TYPICAL STARTING DOSE

1 hour

#### **Helps with these Symptoms & Conditions:**

Artery Hardening Cognitive Decline Underactive Thyroid

**Helps with these Goals:** 

Cognitive Function Fat Loss Focus Longevity Memory Mood Short Term Memory Strength

**Helps with these DNA Risks:** 

♠ Parkinson's Disease

#### **Recommendation Note:**

These are my personal recommendations to you

## How it helps



IMPACT EVIDENCE 5/5

Regular exercise is linked to a 25% lower risk of Parkinson's disease. The risk may be 40% lower in those who practice intense exercise [R, R].

Strength training is one of the best options for people with Parkinson's disease. It may improve [R, R, R, R, R, R]:

- Motor symptoms and balance
- Fitness, muscle strength, and flexibility
- Participation in daily activities
- Sleep quality and cognition
- Mental health and quality of life

Programs with sessions of **60-90 minutes, 4 times a week, for 12 weeks** may be most effective [R].

Specific **core exercises** may be particularly helpful for improving balance and posture [R].

10 Aquatic Therapy

Participate in aquatic therapy sessions 2-3 times a week for at least 30 minutes. These sessions should be guided by a professional therapist who specializes in aquatic therapy, and the program should be tailored to your specific health condition and physical capabilities.

TYPICAL STARTING DOSE

30 minutes

#### **Helps with these DNA Risks:**



## **How it helps**

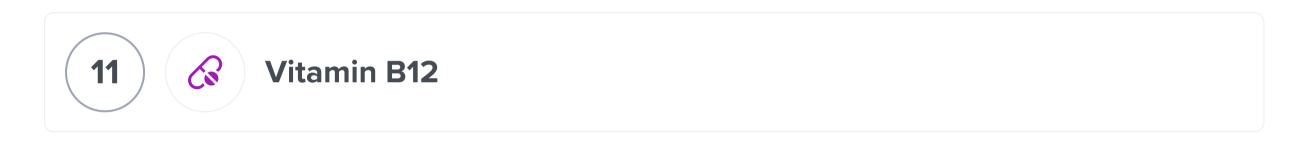


### **Parkinson's Disease**



Aquatic physiotherapy (hydrotherapy) improves motor performance, quality of life, balance, and gait in Parkinson's patients as effectively as land-based exercises according to 3 meta-analyses (the largest one with 19 studies) [R, R, R].

Similarly, 2 meta-analyses (the largest one with 15 trials) found water-based exercise effective at improving balance, mobility, and quality of life in people with Parkinson's disease [R, R].



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

TYPICAL STARTING DOSE

10 mcg

#### **Helps with these Symptoms & Conditions:**

Cognitive Decline Underactive Thyroid

#### Helps with these Goals:

Mood

#### Helps with these DNA Risks:

Parkinson's Disease ! Tremor

## **How it helps**



MPACT 2/5

EVIDENCE 3/5

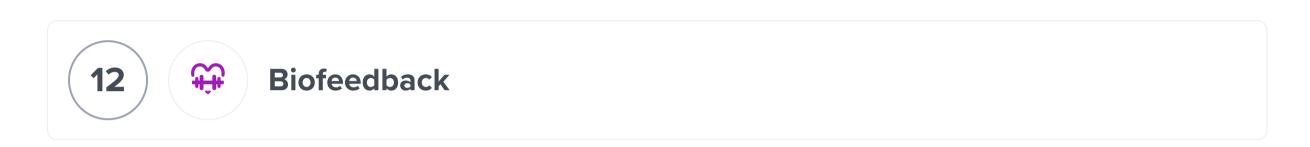
Vitamin B12 can help slow the progression of Parkinson's disease by protecting neurons against toxins and promoting the health of the nervous system. However, its actual impact can vary significantly from person to person.

Two meta-analyses (the largest one with 27 studies) associated Parkinson's disease with lower vitamin B12 levels (but not with lower dietary intake) [R, R].

In patients with Parkinson's disease, those with cognitive dysfunction are more likely to have low vitamin B12 levels according to a meta-analysis of 15 studies [R].

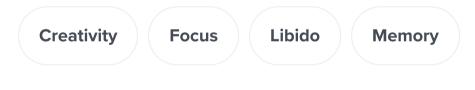


Vitamin B12 deficiency is associated with neurological issues that can lead to tremors. Supplementing with Vitamin B12 can help improve nervous system function and potentially reduce tremor severity in individuals with a deficiency.



Attend biofeedback sessions once or twice a week for about 8 to 10 weeks. During these sessions, a therapist will guide you through exercises to control different body functions, such as heart rate or muscle tension, using monitors that provide feedback on your physiological state. Practice the techniques learned during sessions at home daily to improve symptoms and manage your condition.

#### **Helps with these Goals:**



#### Helps with these DNA Risks:



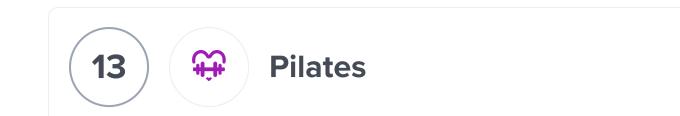
## **How it helps**



Biofeedback may improve balance and gait in people with Parkinson's disease. However, the available evidence is of low quality [R, R].



Biofeedback helps individuals with tremors gain control over their physiological functions by providing real-time feedback. This method has been shown to reduce the severity of tremors by teaching users how to regulate stress and muscle tension.



Engage in Pilates exercises for at least 20-30 minutes, 3 times a week. Focus on core strength, flexibility, and mindful breathing. It is suitable for both beginners and advanced individuals, adjusting the difficulty of exercises as necessary.

TYPICAL STARTING DOSE

30 minutes

**3/5** 

IMPACT

**3**/5

#### **Helps with these Symptoms & Conditions:**

**Cognitive Decline** 

#### Helps with these Goals:



#### **Helps with these DNA Risks:**



## How it helps



Regular exercise is linked to a **25**% lower risk of Parkinson's disease [R].

In people with Parkinson's disease, pilates may improve [R, R]:

- Balance and movement
- Leg function
- Fitness



Drink 1-3 cups of tea daily, choosing from green, black, or herbal varieties according to preference. It's beneficial to consume tea throughout the day, either hot or cold, for ongoing hydration and health benefits.

#### **Helps with these Symptoms & Conditions:**

Artery Hardening Cognitive Decline

#### **Helps with these Goals:**

Creativity Focus Longevity

**Helps with these DNA Risks:** 



## How it helps



#### **Parkinson's Disease**

IMPACT EVIDENCE 3/5

Drinking 2 cups of tea per day is linked to a 25% lower risk of Parkinson's disease [R, R, R].

Tea is a major source of **caffeine**, which seems to protect against this condition [R, R, R].

A <u>meta-analysis of 8 studies and 5,669 participants</u> concluded that drinking **tea reduces the risk of Parkinson's disease by "15% and there wasn't a dose-response relationship** [R].

On the other hand, a <u>meta-analysis of 13 studies and 901,764 participants</u> did find a dose-response relationship and concluded **protection against** Parkinson's disease reaches a maximum at 3 cups/day  $\mathbb{R}$ .





## **Dietary Vitamin E**

Incorporate foods high in Vitamin E into your daily diet. This includes almonds, hazelnuts, sunflower seeds, and green leafy vegetables such as spinach and broccoli. Aim for a daily intake of 15mg of Vitamin E from your diet, which is roughly a handful of almonds (about 23 almonds) or 2 tablespoons of sunflower seeds.

Helps with these Goals:

Longevity

**Helps with these DNA Risks:** 



## How it helps



Parkinson's Disease

IMPACT 3/5

EVIDENCE 3/5

People with high vitamin E levels may have a 30% lower risk of Parkinson's disease [R].

Likewise, dietary vitamin E may protect against this condition. For every **5-mg increase** in daily vitamin E intake, the risk may be **20% lower**. Vitamin E may protect the nerves against oxidative stress [R, R, R].

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].





## Palmitoylethanolamide (PEA)

For managing pain and inflammation, take 300mg to 1,200mg of palmitoylethanolamide (PEA) in divided doses throughout the day, preferably with meals to enhance absorption. This regimen should be followed for at least 6 weeks to evaluate its effectiveness.

#### **Helps with these Goals:**

Mood

#### **Helps with these DNA Risks:**



## How it helps



#### **Parkinson's Disease**

IMPACT EVIDENCE 1/5

According to a single study, adding PEA (600 mg/day) to standard treatment may slow down progression of Parkinson's disease and reduce disability [R].





#### **PEMF**

Use a PEMF (Pulsed Electromagnetic Field) device for 30 minutes to 2 hours daily. Position the device as directed by the manufacturer, typically over the area of concern or discomfort. It can be part of your daily routine, such as during rest or activity, without a specific end date unless advised by a healthcare professional.

TYPICAL STARTING DOSE

30 minutes

#### **Helps with these Symptoms & Conditions:**

Hair Loss

#### **Helps with these DNA Risks:**



## How it helps

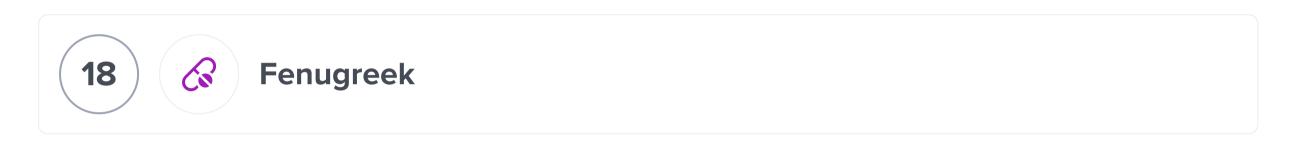


### Parkinson's Disease



PEMF (Pulsed Electromagnetic Field) therapy can help alleviate Parkinson's Disease symptoms by promoting better cell function and health. It does this by increasing cellular energy production, reducing inflammation, improving circulation and sleep, and reducing stress and anxiety.

In a placebo-controlled trial of 97 patients with Parkinson's disease, applying PEMF (30 min/day for 8 weeks) improved the rate of force development during chair rise, mobility, and activities of daily living scores [R, R].



Take a 500 mg fenugreek supplement daily, preferably with a meal to aid in digestion and absorption.

TYPICAL STARTING DOSE

500 mg

#### **Helps with these Goals:**

Libido

#### **Helps with these DNA Risks:**



## **How it helps**



#### Parkinson's Disease

IMPACT EVIDENCE

In a placebo-controlled trial of 50 patients with Parkinson's disease, supplementation with fenugreek (300 mg, 2x/day) as an add-on to L-DOPA for 6 months further improved the symptoms [R].

Fenugreek has antioxidant and anti-inflammatory properties that may protect nerve cells and improve their function.





## **Moderate Computer Use**

Limit your computer use to no more than 2 hours per day for recreational purposes. Ensure to take a 5-minute break every 30 minutes to rest your eyes and move around.

TYPICAL STARTING DOSE

2 hours

**Helps with these Goals:** 



**Helps with these DNA Risks:** 



## How it helps



#### Parkinson's Disease

■ ■ ■ ■ 1/5

EVIDENCE 1/5

A study with over 470,000 participants found that moderate computer use may lower the risk of Parkinson's disease alone or along with depression. Using the computer moderately was linked to better brain health, including a larger hippocampus [R].

However, replacing some computer time with physical activities, especially vigorous sports, may offer a greater benefit [R].





## **Plasmalogens**

Follow the dosage instructions provided on the product label or as directed by your healthcare provider. Typically, these supplements come in capsule form and are taken once daily with water, ideally with a meal to enhance absorption. Consistency is key, so taking them at the same time each day is recommended. Always consult a healthcare professional before starting plasmalogen supplements, especially if you are pregnant, nursing, or have any medical conditions.

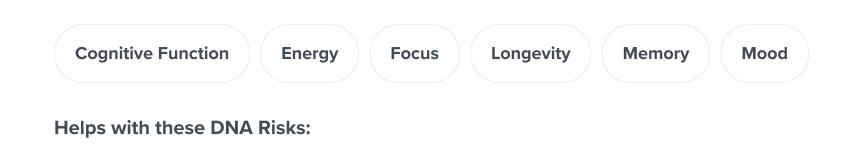
**Helps with these Symptoms & Conditions:** 

**Cognitive Decline** 

Helps with these Goals:

**EVIDENCE** 

**-** - - - 1/5



## How it helps

Parkinson's Disease

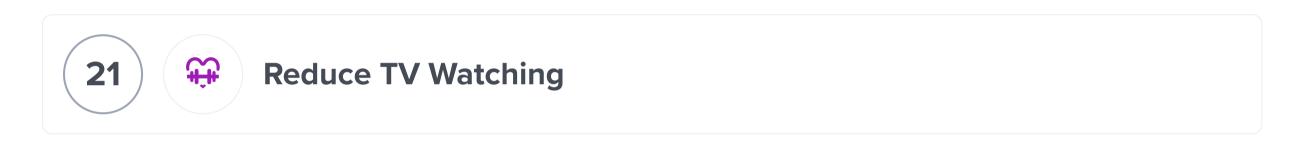


#### **Parkinson's Disease**

Research suggests that patients with Parkinson's disease have lower levels of ethanolamine plasmalogen in their red blood cells and phosphatidylethanolamine plasmalogen in their serum [R, R].

In a placebo-controlled trial of 10 patients with Parkinson's disease, supplementation with purified ether phospholipids derived from scallops (1 mg/day, containing plasmalogens) for 24 days improved ether phospholipid levels and some clinical parameters (such as daily activity, bodily discomfort, cognition, stigma, and social support) [R].

IMPACT



Limit TV watching to less than 2 hours per day. Engage in physical activities, reading, or hobbies during the time you would normally watch TV.

TYPICAL STARTING DOSE

2 hours

#### **Helps with these Goals:**

Mood

Helps with these DNA Risks:



## How it helps



### **Parkinson's Disease**

Watching a lot of TV may increase the risk of Parkinson's disease, according to a study with over 470,000 people. Those who watched the most TV had a smaller hippocampus, which is linked to this condition [R].

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#### **Limit Saturated Fat**

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

**Helps with these Symptoms & Conditions:** 

**Artery Hardening** 

**Helps with these Goals:** 

Fat Loss

**Helps with these DNA Risks:** 



## How it helps



### **Parkinson's Disease**

IMPACT EVIDENCE 3/

Although dietary saturated fat hasn't been overall associated with Parkinson's disease, a meta-analysis found that exposure to the pesticide rotenone increased the risk of this condition more in people with a dietary intake of saturated fat above the median [R, R].





## Mindfulness-Based Stress Reduction (MBSR)

Enroll in an 8-week MBSR course, which includes a weekly 2.5-hour class, one all-day class after the sixth week, and 45 minutes of daily home practice guided by assignments and instructional recordings.

TYPICAL STARTING DOSE

2 hours

**Helps with these Symptoms & Conditions:** 

**Cognitive Decline** 

**Helps with these Goals:** 



#### Helps with these DNA Risks:



## How it helps

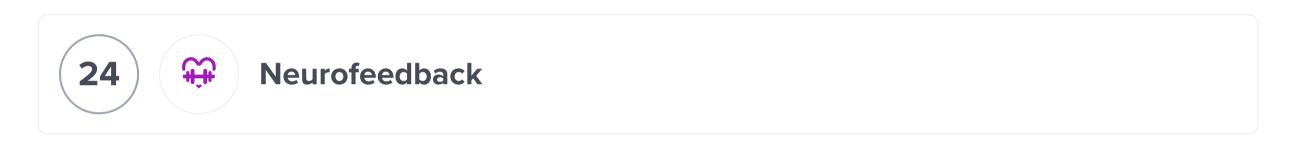


#### **Parkinson's Disease**

IMPACT EVIDENCE

1/5 2/5

A meta-analysis of 4 trials found that mindfulness-based therapies (including mindfulness-based stress reduction) have small to moderate effects on psychological distress in patients with Parkinson's disease [R].



Attend neurofeedback sessions with a trained therapist, usually once or twice a week, for a minimum of 20 sessions. Each session typically lasts 30 to 60 minutes where sensors are placed on your scalp to monitor brainwave activity, and feedback is given in real-time to help you learn to control or alter your brain functions.

TYPICAL STARTING DOSE

1 hour

#### Helps with these Goals:



#### **Helps with these DNA Risks:**



## How it helps



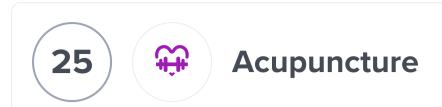
Parkinson's Disease

1/5

Neurofeedback helps Parkinson's disease by training the brain to improve its self-regulation skills. This can help reduce typical Parkinson's symptoms, such as tremors or impaired movement, by improving brain functionalities and neural pathways.

Sixteen patients were selected through purposive sampling and were randomly divided into experimental and control groups in a study. The research procedure included eight sessions. The results suggest that NFT can improve static and dynamic balance in PD patients [R].

Another study with 10 subjects demonstrated that self-modulation of cortico-subcortical motor circuits can be achieved by PD patients through neurofeedback and may result in clinical benefits that are not attainable by motor imagery alone [R].



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

**Helps with these Symptoms & Conditions:** 

Cognitive Decline

**Helps with these Goals:** 

Energy Fat Loss Mood

Helps with these DNA Risks:



## **How it helps**



## Parkinson's Disease

IMPACT EVII

When added to standard treatment, acupuncture may slightly improve motor symptoms of Parkinson's disease [R, R, R, R, R].

In one study, acupuncture improved anxiety in people with Parkinson's disease [R].

Interestingly, applying bee venom to acupoints, both alone and in combination with acupuncture, may also help [R, R, R].

However, the available evidence for all of the above benefits is limited and of low quality.

**Please note:** Acupuncture is 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].

26 Avoid PCBs

To avoid PCBs (Polychlorinated Biphenyls), do not use old electrical equipment manufactured before 1977, avoid consuming fish from contaminated waters, especially larger species such as shark and swordfish which are higher in the food chain, and check for and properly dispose of any old fluorescent lighting

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fixtures that may contain PCBs. Pay attention to local advisories regarding the safety of locally caught fish and wildlife.

**Helps with these Symptoms & Conditions:** 

**Cognitive Decline** 

**Helps with these Goals:** 

Fat Loss Focus Longevity

**Helps with these DNA Risks:** 



## **How it helps**



## Parkinson's Disease

EVIDENCE

1/5

1/5

Avoiding PCBs can reduce the risk of Parkinson's Disease because these chemicals have been linked to causing damage to the neurons that produce dopamine, the deficit of which leads to Parkinson's symptoms. In essence, by avoiding exposure to such harmful compounds, you help protect your nervous system.

A postmortem study of 72 brains associated elevated concentrations of total PCBs and specifically congeners 138, 153, and 180 with Parkinson's disease, but only in women [R].





## **Binaural Beats**

Listen to binaural beats through headphones for 30 minutes to 2 hours daily. Choose frequencies that match your goal, such as relaxation or focus, and ensure a quiet, comfortable environment for the best experience.

TYPICAL STARTING DOSE

30 minutes

#### **Helps with these Goals:**

Cognitive Function Creativity Focus Memory Short Term Memory

#### **Helps with these DNA Risks:**

♠ Parkinson's Disease

# How it helps

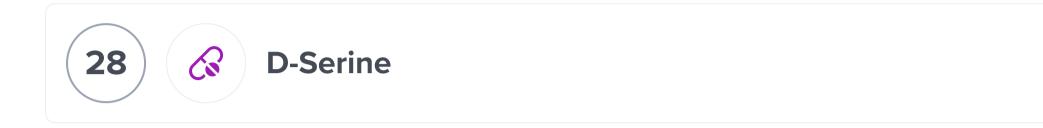


#### **Parkinson's Disease**



In a non-placebo-controlled trial of 14 patients with Parkinson's disease, listening to binaural beats improved working memory performance and modulated brain activity [R].

Binaural beats, a form of sound wave therapy, stimulates brains affected by Parkinson's to enhance motor control and reduce tremors. Listening to this can also help to promote relaxation and reduce anxiety, a common condition in Parkinson's patients.



Take d-serine as a dietary supplement in doses ranging from 30 to 120 milligrams per kilogram of body weight per day. It is typically consumed in capsule or powder form mixed with water or another beverage. Start with the lower end of the dosage range and adjust based on tolerance and effectiveness, not exceeding the recommended maximum unless directed by a healthcare provider.

#### Helps with these Goals:



#### Helps with these DNA Risks:



# How it helps



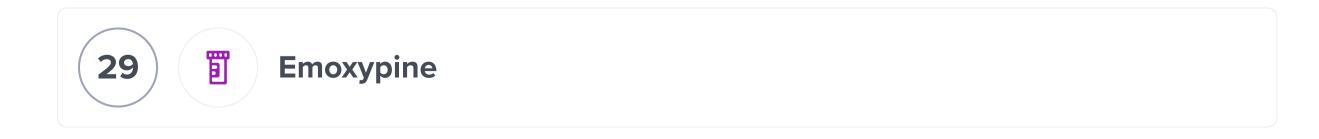
#### **Parkinson's Disease**



D-Serine is believed to protect neurons from harm and stimulate their regeneration, hence assisting in the mitigation of Parkinson's symptoms such as tremors and stiffness. However, evidence is limited and more research is needed - always consult your doctor.

According to a pilot study in people with Parkinson's disease, D-serine (for 6 weeks) in combination with standard therapy may improve motor symptoms and reduce behavioral issues [R].

**Please note:** High doses of D-serine (120 mg/kg/day or about 8 g/day) may damage the kidneys. Make sure to consult your doctor before taking D-serine, especially if you have kidney disease [R].



Emoxypine is typically available in oral capsules, tablets, or injectable forms, with the dosage depending on the condition being treated. For general antioxidant or neuroprotective purposes, the oral dose ranges from 125–250 mg taken 2–3 times daily, while more intensive treatments may require higher doses or injectable administration under medical supervision. It is usually recommended to take Emoxypine with meals to minimize gastrointestinal discomfort. Treatment duration can vary from a few weeks to several months, depending on the therapeutic goal.

# Helps with these Symptoms & Conditions:

**Artery Hardening** 

**Cognitive Decline** 

**Helps with these Goals:** 

Focus

Mood

**Helps with these DNA Risks:** 



Parkinson's Disease

# How it helps



## Parkinson's Disease

■ ■ ■ ■ 1/5 EVIDENCE ■ ■ ■ ■ 1/5

In a trial of 65 patients with Parkinson's disease, Emoxypine infusion (4 mL of a 5% solution per 200-250 mL of physiological solution) for 10 days decreased postural and static tremor, decreased muscle tone, and increased mobility and locomotor activity [R].

# 30 Hydrogen Water

Drink 1.5 to 2 liters of hydrogen-rich water daily, spread out over the course of the day. It is best to start with a lower volume and gradually increase it to allow your body to adjust. This practice should be continued daily as a part of your lifestyle to maintain its potential benefits.

#### **Helps with these Symptoms & Conditions:**

**Cognitive Decline** 

**Helps with these Goals:** 

Strength

#### **Helps with these DNA Risks:**



## How it helps

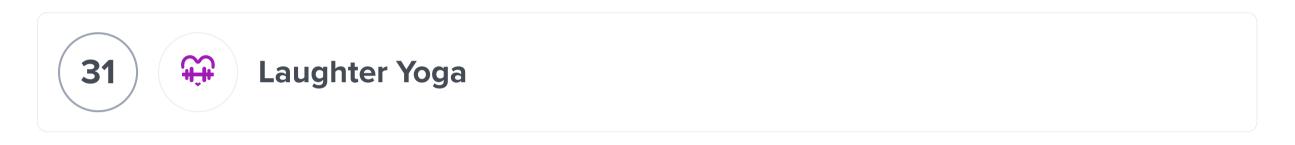


## **Parkinson's Disease**



In a 48-week study, Japanese Parkinson's patients drinking 1,000 mL/day of H<sub>2</sub>-water showed significant improvement in UPDRS scores compared to a placebo group [R].

In a study with 18 Parkinson's patients, PBM+H2 therapy for 2 weeks significantly reduced UPDRS scores without adverse events, suggesting it's safe and effective; further large-scale trials are needed [R].



Attend a laughter yoga session for at least 30 minutes, three times a week. These sessions can be found in local community centers or online classes tailored for various ages and physical abilities.

TYPICAL STARTING DOSE 30 minutes

#### **Helps with these Goals:**



#### **Helps with these DNA Risks:**



# **How it helps**



## Parkinson's Disease



In a non-placebo-controlled trial of 85 patients with Parkinson's disease, participating in a 45-minute laughter yoga session improved well-being for both them and their caregivers [R].

Laughter yoga may help by stimulating physical coordination and balance. Moreover, it can boost mood and reduce stress. This may help manage nonmotor symptoms like depression or anxiety.





## **Licorice Root**

Take a licorice root supplement in the form of a capsule, tablet, or liquid extract. For general health purposes, the common dose ranges from 250 to 500 mg three times daily. It's important not to exceed 4 to 6 weeks of continuous use without a break, due to potential side effects like high blood pressure or low potassium levels.

TYPICAL STARTING DOSE **750 mg** 

#### **Helps with these DNA Risks:**



## **How it helps**



## **Parkinson's Disease**

EVIDENCE

In a double-blinded trial of 39 Parkinson's patients, licorice root (5 cc, containing 136 mg of licorice extract with 12.14 mg glycyrrhizic acid, and also 136 µg of polyphenols, 2x/day for 6 months) improved total Unified Parkinson's rating scale (UPDRS), daily activities and tremor, motor test, and rigidity scores, without causing any electrolyte abnormality, changes in blood pressure or blood glucose levels [R].





# N-acetylcysteine (NAC)

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

TYPICAL STARTING DOSE 1200 mg

#### **Helps with these Goals:**



Mood

#### Helps with these DNA Risks:



# How it helps



Parkinson's Disease

IMPACT **-** - - - 1/5 **EVIDENCE -** - - - 1/5 Preliminary studies show that supplementation with NAC may support dopamine neurotransmission and replenish blood antioxidants such as glutathione in patients with Parkinson's disease [R, R, R].

NAC can influence glutathione levels and oxidative stress, potentially providing neuroprotective benefits.





## **Nicotinamide Riboside (NR)**

Take 250-300 mg of Nicotinamide Riboside (NR) supplement daily, with or without food. It can be taken any time of the day, but maintaining a consistent routine, such as taking it every morning, is advised for best results. Continue this regimen daily for an ongoing basis to support cellular health and energy levels.

TYPICAL STARTING DOSE

250 mg

Helps with these Goals:

**Fat Loss** 

**Helps with these DNA Risks:** 



## How it helps



## Parkinson's Disease

IMPACT EVIDENCE 1/5

In a placebo-controlled trial of 30 newly diagnosed Parkinson's disease patients, supplementation with NR (1000 mg/day) for 30 days increased brain NAD levels and decreased the levels of inflammatory cytokines in the blood and cerebrospinal fluid, potentially exerting neuroprotective effects [R].

NR may enhance brain function by boosting the production of new brain cells and protecting existing ones.





# **Pycnogenol**

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

**Helps with these Symptoms & Conditions:** 

**Artery Hardening** 

**Cognitive Decline** 

**1**/5

#### **Helps with these Goals:**

Cognitive Function Fat Loss Focus Libido Memory Short Term Memory

#### **Helps with these DNA Risks:**

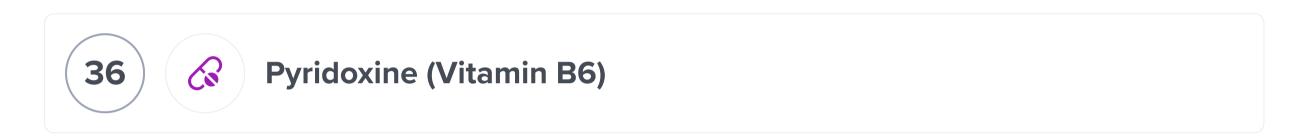


## How it helps



## **Parkinson's Disease**

In people with Parkinson's disease, pycnogenol supplementation (150 mg/day for 4-8 weeks) may reduce cognitive and motor symptoms [R, R].



Take a pyridoxine (vitamin B6) supplement daily. Requirements range from 1.3 to 1.7 milligrams per day for adults, but supplement doses usually start from 50 mg. Consult with a healthcare provider for higher doses or specific medical conditions that might benefit from increased supplementation.

TYPICAL STARTING DOSE

50 mg

**-** - - - 1/5

#### **Helps with these DNA Risks:**



# **How it helps**



## Parkinson's Disease

IMPACT EVIDENCE 1/5

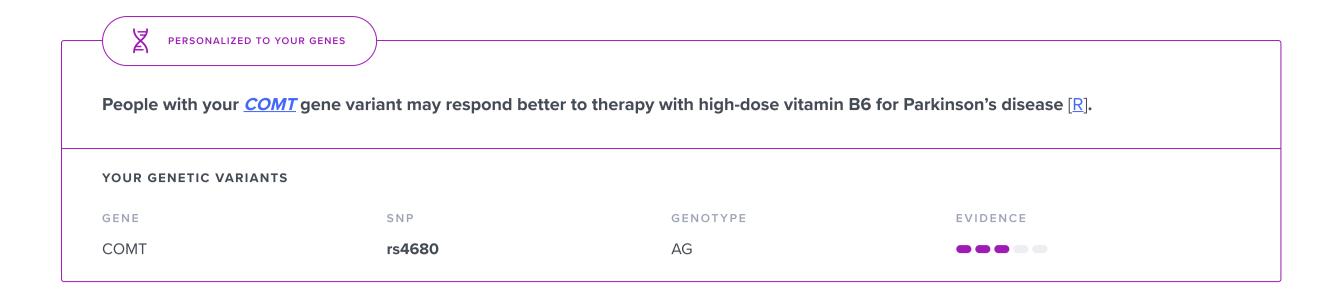
People with certain gene variants may respond better to therapy with high-dose vitamin B6 for Parkinson's disease [R].

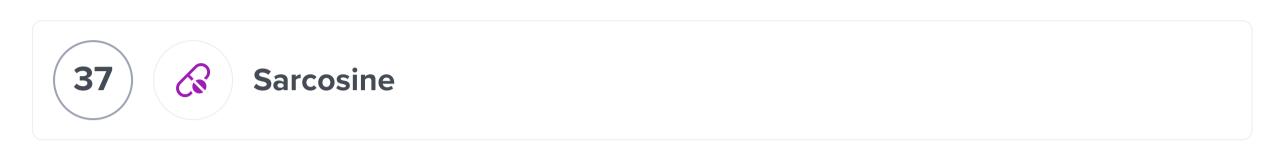
A study of 5,289 participants associated a high dietary vitamin B6 intake with a reduced risk of Parkinson's disease [R].

Although most patients didn't have Parkinson's disease but schizophrenia, vitamin B6 supplementation improved parkinsonism and tardive dyskinesia (movement disorders) in 3 trials of 55 patients [R, R, R].

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Take sarcosine as an oral supplement, typically in powder form. The common dosage ranges from 2 grams to 3 grams per day, usually divided into two equal doses taken in the morning and evening. It is recommended to continue this regimen for at least 4 to 6 weeks to observe effects.

TYPICAL STARTING DOSE

2 g

#### **Helps with these Goals:**



#### **Helps with these DNA Risks:**



# How it helps



#### Parkinson's Disease

IMPACT EVIDENCE

1/5

In a placebo-controlled trial of 30 patients with Parkinson's disease, supplementation with sarcosine for 8 weeks temporally improved depression and neuropsychiatric symptoms, especially in those with mild-moderate symptom severity, without exacerbating the motor or cognitive features [R].



Take 100 to 200 mg of ubiquinol daily, preferably with a fatty meal to enhance absorption. This dosage can be adjusted based on individual health needs and under the guidance of a healthcare professional. Continue this supplementation daily for ongoing support of heart health and energy levels.

TYPICAL STARTING DOSE

100 mg

**Helps with these Symptoms & Conditions:** 

Artery Hardening

**Helps with these Goals:** 

Energy

Helps with these DNA Risks:



## How it helps



## Parkinson's Disease

IMPACT EVIDENCE

1/5

1/5

Ubiquinol, an active form of CoQ10, offers antioxidant benefits and supports mitochondrial function which could help protect brain cells from further damage in Parkinson's disease. However, more rigorous scientific studies are needed to definitively prove its efficacy in treating Parkinson's disease.

In a double-blind, placebo-controlled pilot trial with Japanese PD patients, Group A (experiencing wearing off) taking ubiquinol-10 for 48 weeks showed symptom improvement (UPDRS scores decreased), while Group B (early PD) did not exhibit significant changes in UPDRS scores [R].





# **Walking Meditation**

Dedicate 10-20 minutes daily to practice walking meditation, ideally in a quiet space where you can walk back and forth. Focus on the sensation of each step, maintaining a slow pace that allows you to be fully aware of the movement and feeling in your feet and body. It can be done indoors or outdoors.

**30 minutes** 

**Helps with these Goals:** 

Mood

Strength

Helps with these DNA Risks:



# How it helps



Parkinson's Disease

IMPACT 1/5

eVIDENCE 1/5

In a non-placebo-controlled trial of 33 patients with Parkinson's disease, practicing walking meditation 3x/week for 12 weeks reduced disease severity, decreased the number of participants with anxiety, and encouraged higher rates of exercise adherence [R].

Walking meditation can improve motor function and reduce rigidity by enhancing the coordination and balance of the body. Furthermore, the focus on breathing and mindfulness can help manage emotional challenges such as anxiety or depression.





# **Guided Imagery**

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

#### **Helps with these Goals:**



Focus

Memory

Mood

## Helps with these DNA Risks:



♠ Parkinson's Disease

# **How it helps**



## Parkinson's Disease

IMPACT 0/5

EVIDENCE 0/5

In a study of 21 Parkinson's disease patients, listening to relaxation-guided imagery significantly increased "on" time from 47.7% to 62.8%. Relaxing music had no significant effect. Both sessions reduced UPDRS motor scores, with relaxation-guided imagery showing a larger reduction. After 3 months, guided imagery non-significantly increased "on" time [R].

Guided imagery may help by aiding relaxation and stress reduction. Imagery techniques may also help improve mood, sleep, and overall mental well-being, consequently enhancing quality of life.

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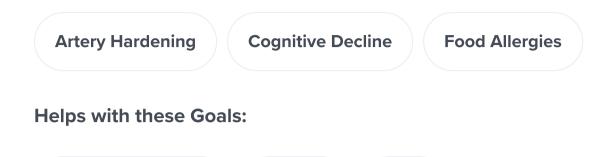
Glutamine

Take 5 to 10 grams of glutamine powder, mixed with water or another beverage, daily. It can be divided into two servings, one in the morning and the other in the evening. This supplementation is generally considered safe for long-term use, but it's best to consult with a healthcare provider for personalized advice.

TYPICAL STARTING DOSE

5 g

**Helps with these Symptoms & Conditions:** 



**Fat Loss** 

Mood

**Helps with these DNA Risks:** 

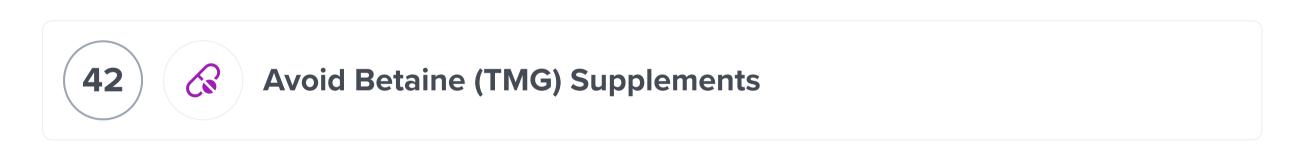
**Cognitive Function** 



## **How it helps**



Genetically predicted higher levels of glutamine may be associated with a decreased risk of Parkinson's disease [R].



Do not purchase or consume any dietary supplements that list betaine (also known as trimethylglycine or TMG) among their ingredients. Check the labels of supplements you currently use or plan to buy to ensure they are free of betaine.

#### **Helps with these DNA Risks:**



# **How it helps**



Genetically higher levels of betaine may be associated with worse Parkinson's disease symptoms [R].





# **Avoid Leucine Supplements**

Do not purchase or consume any supplements that list leucine as an ingredient. Check the labels of your dietary supplements to ensure they do not contain leucine.

#### **Helps with these DNA Risks:**



## **How it helps**



**Parkinson's Disease** 

IMPACT EVIDENCE 0/5

Genetically predicted higher levels of leucine may be associated with a higher risk for Parkinson's disease [R].





# **Choline Supplements**

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

#### **Helps with these Goals:**

Cognitive Function Focus Memory Short Term Memory

#### **Helps with these DNA Risks:**



# **How it helps**



Parkinson's Disease

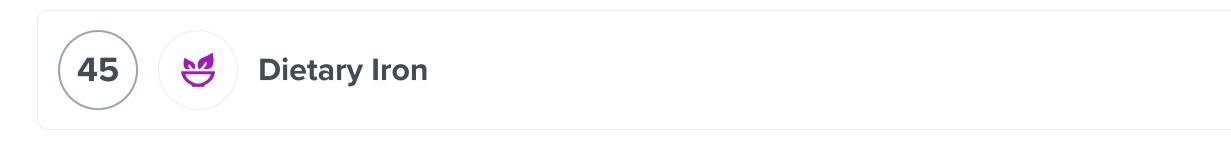
IMPACT 0/5

EVIDENCE 0/5

Genetically higher choline levels may be causally associated with lower severity of Parkinson's symptoms [R].

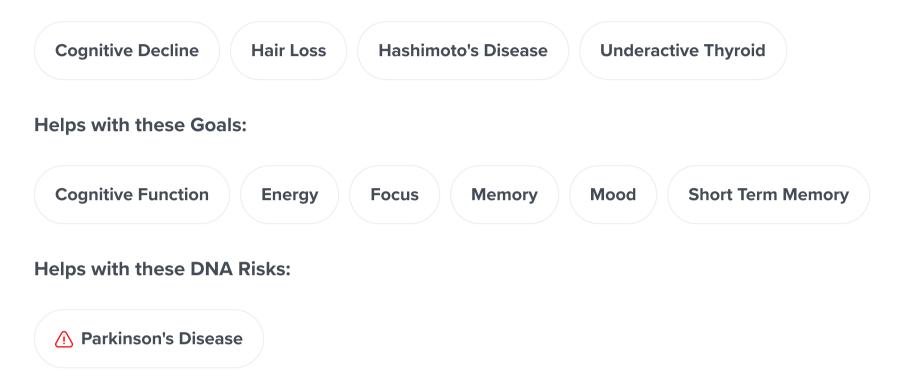
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Incorporate iron-rich foods into your daily meals, such as red meat, chicken, turkey, fish, beans, lentils, tofu, cooked spinach, and fortified cereals. Aim for at least 18 mg of iron per day for adult women and 8 mg per day for adult men. It's also beneficial to pair these foods with vitamin C-rich foods like oranges, strawberries, or bell peppers to enhance iron absorption.

#### **Helps with these Symptoms & Conditions:**

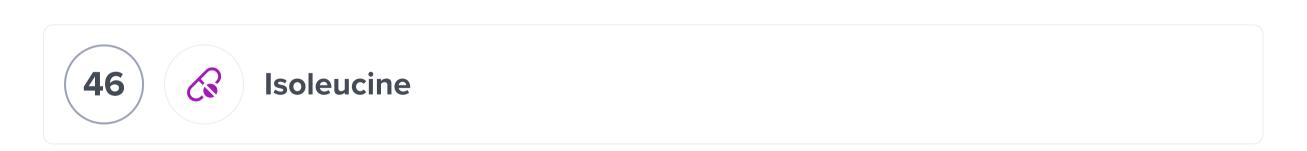


## How it helps



Genetically higher levels of iron may be associated with a reduced risk of Parkinson's disease (3% per 10 μg/dL increase in serum iron) [R].

Please note: Increased iron intake from meat is linked to higher odds of diabetes and heart disease. Try to find a balance between plant and animal iron sources [R, R, R, R].



Take isoleucine as part of a branched-chain amino acid (BCAA) supplement, typically available in powder or capsule form. The general dosage recommended is 20-35 grams of BCAAs, which includes isoleucine, per day, divided into two or three doses. This supplementation should be coupled with meals or pre- and post-workout for optimal absorption and effectiveness.

TYPICAL STARTING DOSE

20 g

#### **Helps with these Goals:**

Mood

**Helps with these DNA Risks:** 



# **How it helps**



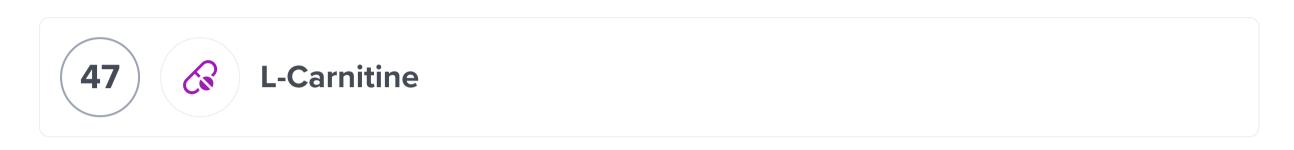
## Parkinson's Disease

IMPACT 0/5

0/5

EVIDENCE

Genetically predicted higher levels of isoleucine may be associated with a decreased risk of Parkinson's disease [R].



Take 500 mg of L-carnitine supplement daily with a glass of water, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

**1** g

**Helps with these Symptoms & Conditions:** 

Cognitive Decline

**Helps with these Goals:** 

Energy Fat Loss Focus Libido Memory

**Helps with these DNA Risks:** 



# **How it helps**



## Parkinson's Disease

IMPACT 0/5

EVIDENCE 0/5

Genetically higher L-carnitine levels may be causally associated with lower rates of insomnia in Parkinson's disease [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.

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# L-Phenylalanine

Incorporate foods high in I-phenylalanine into your diet daily. This includes lean meats, fish, eggs, dairy products, soy products, and certain nuts and seeds like almonds and pumpkin seeds.

**Helps with these Goals:** 



**Helps with these DNA Risks:** 



# **How it helps**



Parkinson's Disease

IMPACT 0/5

0/5

EVIDENCE

Genetically predicted higher levels of phenylalanine may be associated with a decreased risk of Parkinson's disease [R].





## **Vitamin E**

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

**Helps with these Symptoms & Conditions:** 

Artery Hardening

**Helps with these Goals:** 

Fat Loss Mood

**Helps with these DNA Risks:** 



EVIDENCE

**—** — — — 1/5

## **How it helps**



Vitamin E has antioxidant properties that can protect against oxidative stress and neuron degeneration in ataxia. It supports cell membrane stability and neurological function, potentially slowing the progression of ataxia symptoms.

In a study of 24 patients with Ataxia with Vitamin E Deficiency (AVED), daily supplementation of 800 mg of Vitamin E normalized serum levels and moderately improved cerebellar ataxia symptoms, particularly in those with a disease duration of 15 years or less [R].



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

**Helps with these Symptoms & Conditions:** 

Cognitive Decline

**Helps with these Goals:** 

Energy Mood Short Term Memory

**Helps with these DNA Risks:** 



# How it helps



IMPACT EVIDENCE 0/5

Acetyl-L-Carnitine has shown potential in improving coordination and motor functions in individuals with ataxia. It helps by enhancing mitochondrial function, which is often compromised in ataxia, leading to improved neuronal energy metabolism.

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