SelfDecode™

Multiple Sclerosis

Disease Report

REPORT CATEGORIES

INFLAMMATION & AUTOIMMUNITY

NERVE HEALTH

Sample Client

Report date: 15 January 2026

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Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

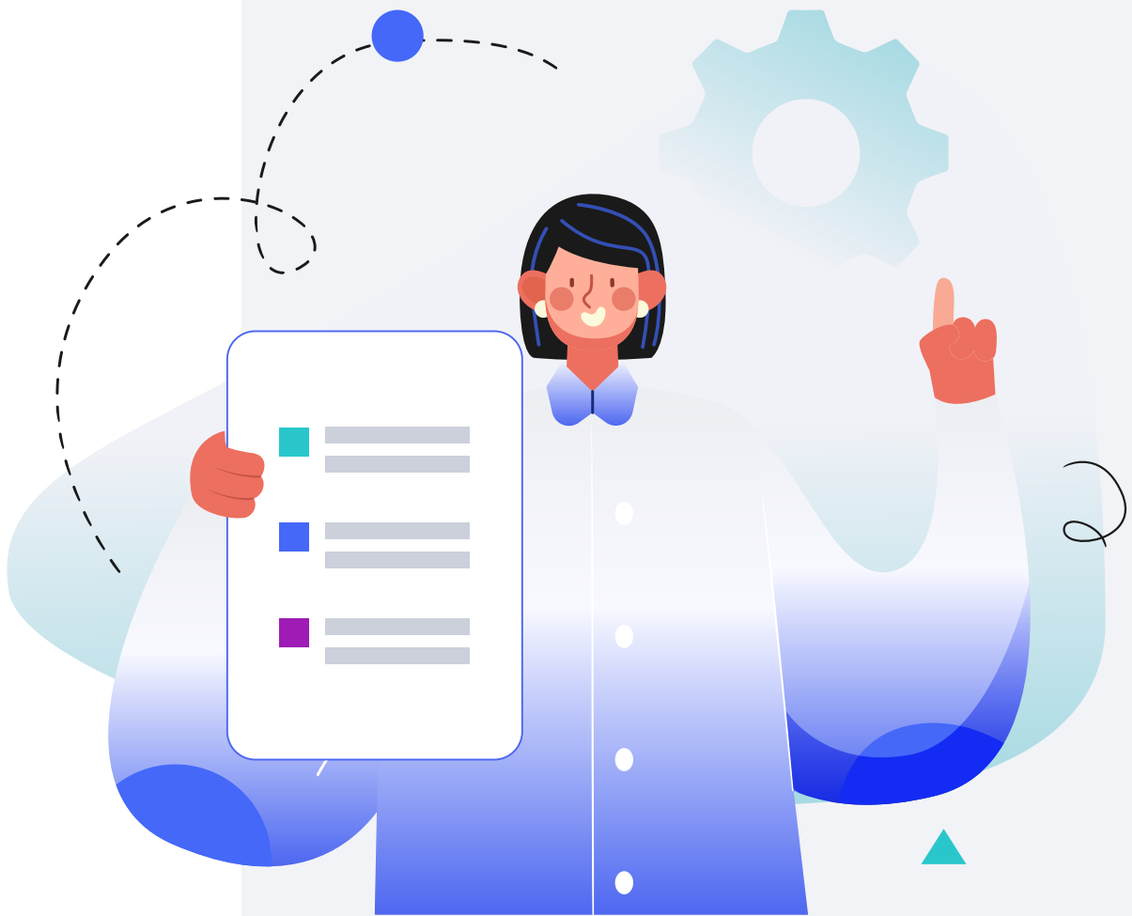
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

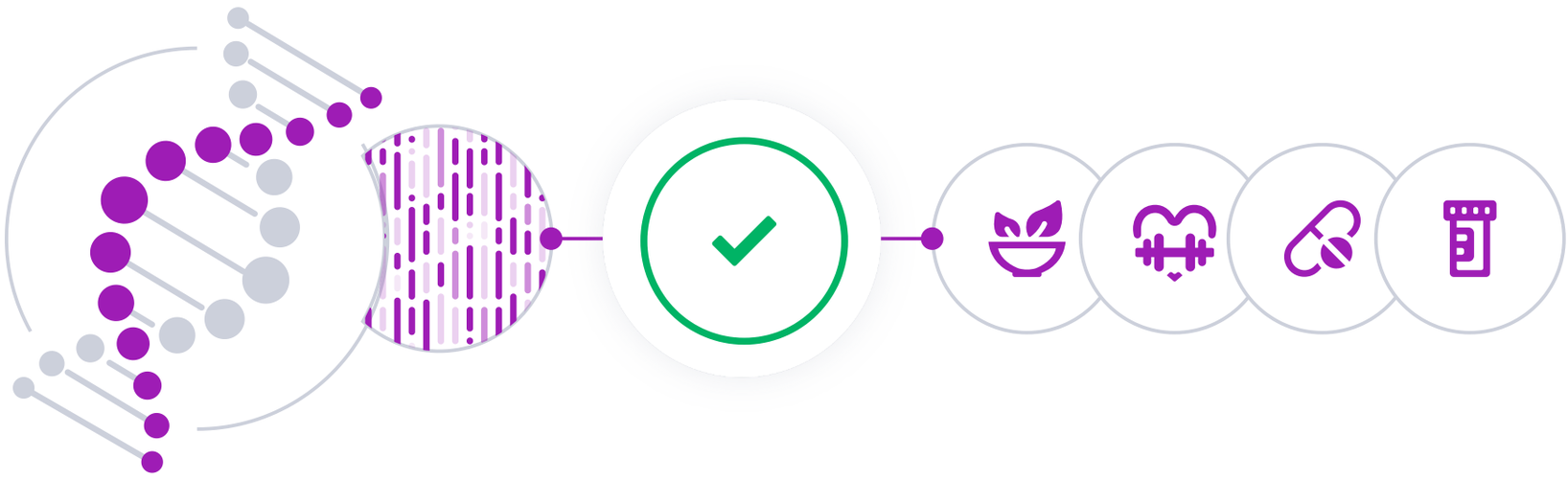


DISCLAIMER

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.

How this works

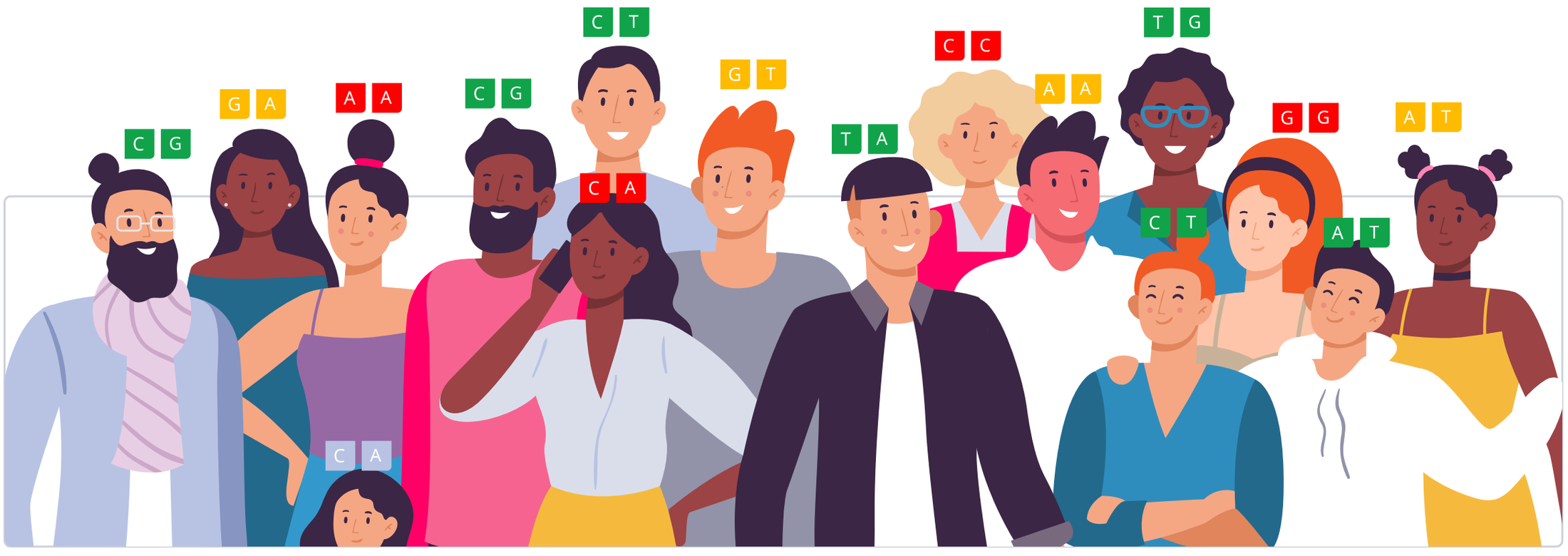
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

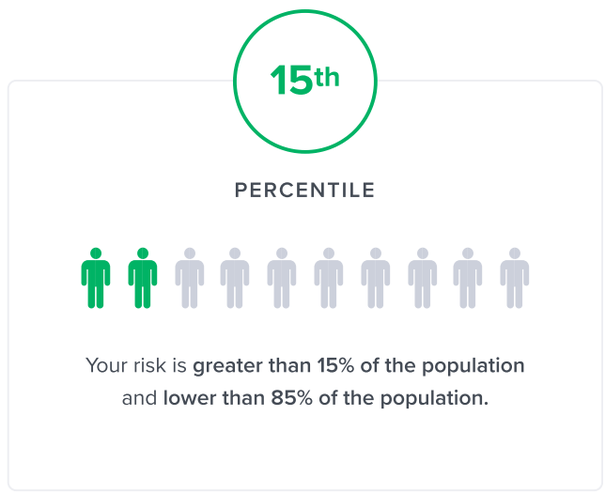
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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.

When we give a risk score, the risk icon tells you if you are at a higher or lower risk compared to other people:

In total, we analyze up to 83 million genetic variants.



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, afew 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

Multiple sclerosis (MS) is a chronic autoimmune disease that affects the central nervous system, comprising the brain and spinal cord. In MS, the immune system attacks the protective covering of nerve fibers, called myelin, causing communication problems between the brain and the rest of the body. Over time, the disease can cause nerves themselves to deteriorate or become permanently damaged.

Common manifestations of multiple sclerosis include:

- Fatigue.
- Numbness or weakness in one or more limbs.
- Electric-shock sensations with certain neck movements.
- Tremors, lack of coordination, or unsteady gait.
- Vision problems, such as prolonged double vision or partial or complete loss of vision.
- Slurred speech.
- Dizziness.
- Problems with bowel and bladder function.

Longevity Screener

Longevity Screener analyzes your DNA and biometric data to holistically determine your risk of developing serious medical conditions.

Your lifetime risk is Normal

Your 10-year risk is Normal

Summary or results

Your results are indicating a Normal risk of developing Multiple Sclerosis in your lifetime and within the next decade.

Monitor your risk by regularly checking your related labs and implementing the recommendations provided.

The risk of developing Multiple sclerosis can be influenced by non-genetic factors such as Crohn's disease, Ulcerative colitis, Type 1 diabetes.

What to do if you get a High risk

Analyze your labs

Analyze your lab results to establish a baseline and track any changes or improvements in your health markers over time.

Find out your out-of-optimal labs

We will pinpoint any values that fall outside the optimal range, allowing you to focus on what matters most.

Optimize labs

Aim to bring all your lab results to optimal levels through lifestyle changes, treatments, and ongoing monitoring for the best health outcomes.

Disclaimer

The Longevity Screener feature is designed to provide insights based on genetic predispositions and basic health data to help you understand factors that may influence your longevity. This tool is for informational purposes only and does not constitute medical advice, diagnosis, or treatment. Always consult with a qualified healthcare provider before making any decisions related to your health, lifestyle, or medical treatments. The information provided by the Longevity Screener is based on current scientific research and should be used as a supplementary tool in conjunction with professional medical advice.

Risk Factors and Genetics

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.

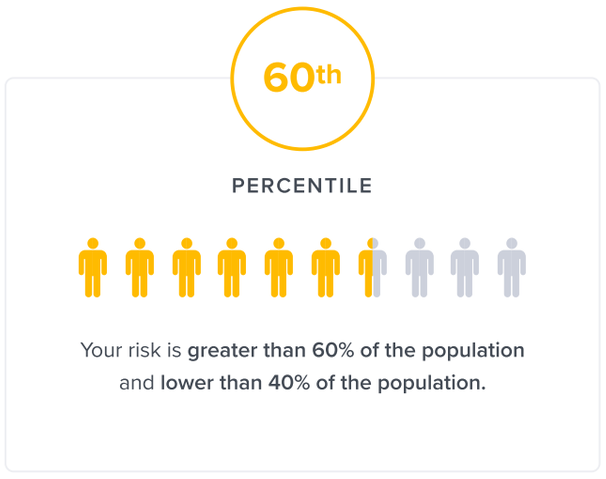
Moreover, a genetically high leukocyte count may be causally associated with MS susceptibility [R].

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

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	CT
HLA-DRB5	rs3135388	GA
EBPL	rs9591325	TT
IL2RA	rs2104286	TT
RBM17	rs11256593	TT
TYK2	rs34536443	GG
TAPBPL	rs12832171	CC
JAK1	rs72922276	GG
RGS1	rs1323292	AA
RTEL1-TNFRSF6B	rs6742	CC
RMI2	rs34947566	CC
MAF	rs17724508	TT
SP140	rs35540610	CC
CD58	rs10801908	TC
IL2RA	rs12722559	CC
IRF8	rs35703946	GG
TGFBR3	rs12133753	CC
SYPL1	rs73414214	CC
IL7R	rs6897932	CC
BCL10	rs35486093	GA
CD5	rs17824933	CG
TNFSF14	rs1077667	TC
POGLUT1	rs9843355	AG

GENE	SNP	GENOTYPE
EOMES	rs438613	TC
LTBR	rs1800693	CT
ELMO1	rs60600003	GT
PRXL2B	rs6670198	CT
TAGAP	rs1738074	CT
ETV7	rs1076928	TC
IMMP2L	rs868824	CT
STAT3	rs2293152	GC
TNFRSF1A	rs4149584	CC
CBLB	rs9657904	CC
APOA5	rs2727790	GG
ETV6	rs73277163	AA
PHGDH	rs12094392	TT
ERMP1	rs2150702	AA
BACH2	rs72928038	GG
PTGER4	rs11749040	GG
GTDC1	rs72855540	AA
IL22RA2	rs62420820	GG
RPAP2	rs58394161	TT
EVI5	rs11809700	CC
THRA	rs883871	GG
IL7R	rs10063294	AA
STAT3	rs744166	AA

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

Your Recommendations

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

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

		DOSAGE
1	Aerobic Exercise (Cardio)	1 hour
2	Yoga	30 minutes
3	Pilates	30 minutes
4	Avoid Noise Pollution	
5	Mediterranean Diet	
6	Exercise At Least One Hour a Day	1 hour
7	Airway Muscle Training	30 minutes
8	Transcutaneous Electrical Nerve Stimulation (TENS)	30 minutes
9	Dietary Omega-3 Fatty Acids	
10	Paleo Diet	
11	Biotin	30 mcg
12	Progressive Muscle Relaxation	10 minutes
13	CBD	10 mg
14	Mindfulness Meditation	30 minutes
15	Saffron	20 mg
16	Inosine	
17	Hatha Yoga	1 hour
18	Curcumin BCM95	1000 mg
19	Self-Hypnosis	20 minutes
20	Blood Flow Restriction Training	15 minutes
21	Aromatherapy	30 minutes
22	Breathing Techniques	10 minutes
23	Iyengar Yoga	1 hour
24	Whey Protein	25 g
25	PEMF	30 minutes
26	Strength Training	1 hour
27	Ginger	500 mg
28	Guided Imagery	30 minutes
29	Pistachios	
30	Alpha-Lipoic Acid	600 mg

31	Retinyl Palmitate	
32	Maintain Optimal Vitamin D Levels	1000 iu
33	Whole-Body Vibration	15 minutes
34	Autogenic Training	10 minutes
35	Music Therapy	30 minutes
36	Avoid Air Pollution	
37	Palmitoylethanolamide (PEA)	
38	Deep Breathing	5 minutes
39	Climbing	1 hour
40	N-Back Training	20 minutes
41	Pomegranate Seed Oil	2 g
42	L-Threonine	500 mg
43	Pranayama (Yoga Breathing)	15 minutes
44	Stability Training	30 minutes
45	Cognitive-Behavioral Therapy (CBT)	
46	Exercise Therapy	1 hour
47	Aquatic Exercise	1 hour
48	Acceptance and Commitment Therapy (ACT)	
49	Vitamin D and Calcium	
50	Limit Saturated Fat	
51	Walking	30 minutes
52	Mindfulness-Based Stress Reduction (MBSR)	2 hours
53	Physical Therapy	30 minutes
54	Neurofeedback	1 hour
55	Tai Chi	1 hour
56	Meditation	30 minutes
57	Art Therapy	1 hour
58	Omega-3 (Fish Oil)	2000 mg
59	Avoid L-Serine Supplements	

1

Aerobic Exercise (Cardio)

IMPACT 3 / 5

EVIDENCE 3 / 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

A review of 45 trials involving 2,250 individuals with multiple sclerosis (MS) found that aerobic training (AT) improved cardiorespiratory fitness, functional capacity, balance, and reduced fatigue perception. Yoga, virtual reality, and AT were effective for balance, while aquatic exercise, virtual reality, and AT improved walking ability. Another study of 966 MS patients showed that both AT and resistance training (RT) were equally effective in improving walking tests and reducing fatigue. VO2max testing in 1,137 individuals revealed that aerobic training may increase VO2max by up to 3.5 mL·kg(-1)·min(-1) in PwMS. Sensorimotor training was recommended for mild disease and aerobic exercise for severe disease in improving quality of life. Aquatic exercise was most effective for reducing MS-related fatigue. Further research is needed on climbing as an exercise therapy [R, R, R, R, R, R, R].

Aerobic exercise improves cardiovascular fitness and may help reduce fatigue, which is common in multiple sclerosis patients.

2

Yoga

IMPACT 3 / 5

EVIDENCE 3 / 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

Yoga may improve physical functions and reduce symptoms like fatigue, pain, and psychosocial stress in people with multiple sclerosis. Several studies have shown that yoga enhances balance, strength, and mobility while alleviating symptoms of anxiety and depression. Yoga also supports social functioning and reduces stress, contributing positively to the overall well-being of multiple sclerosis patients [R, R, R, R].

3

Pilates

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

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

Description

Pilates is a form of exercise that focuses on strengthening the core, improving flexibility, and enhancing overall body awareness through controlled movements and breathing techniques. Its health benefits include increased core strength, improved posture, enhanced flexibility, and better balance, making it a popular choice for those seeking a holistic approach to fitness.

Pilates is a type of exercise that emphasizes proper alignment, breathing techniques, and precise movements.

It involves a series of controlled movements performed on a mat or with specialized equipment, such as a reformer or Cadillac. Pilates helps strengthen the core muscles, improve flexibility, and promote mind-body awareness.

How it helps

Two meta-analyses (the largest one with 14 studies) concluded that Pilates exercise improves balance, physical function, and fatigue in people with multiple sclerosis [R, R].

4

Avoid Noise Pollution

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Minimize exposure to loud environments by using noise-cancelling headphones or earplugs, especially in areas known for high noise levels such as construction sites, concerts, and busy urban streets. Aim to keep the volume of personal audio devices below 60% of their maximum. At home, use carpets, curtains, and wall fabrics to reduce indoor noise, and prefer quieter appliances. Try to dedicate at least one hour of quiet time before bed to aid in relaxation and improve sleep quality.

Description

Noise pollution refers to the presence of excessive, disruptive, or unwanted sound in the environment. It often includes sounds from traffic, industrial machinery, construction, loud music, and other sources that exceed acceptable or comfortable noise levels. Noise pollution disrupts normal activities and can have detrimental effects on human health, well-being, and the natural world.

Prolonged exposure to high noise levels can lead to a range of health issues, including:

- Stress
- Anxiety,
- Sleep disturbances
- High blood pressure
- Heart disease
- Impaired cognitive function

How it helps

A meta-analysis of 24 studies associated exposure to noise pollution with multiple sclerosis development and progression [R].

5

Mediterranean Diet

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Incorporate a variety of primarily plant-based foods, such as fruits, vegetables, whole grains, nuts, and legumes, into every meal. Choose healthy fats, like olive oil, over saturated fats and consume fish and poultry at least twice a week. Limit red meat to a few times a month and include a moderate amount of dairy products. Opt for water and red wine in moderation as your beverages.

Description

The Mediterranean diet is based on the traditional cuisine from the Mediterranean regions. It moderates the intake of red meat and dairy, while being rich in fruits and vegetables, whole grains, and healthy fats (olive oil).

The Mediterranean diet focuses on traditional cuisine from the Mediterranean regions. It's rich in [R]:

- Olive oil
- Fruits and vegetables
- Whole grains
- Nuts and seeds
- Fish

This type of diet may **reduce inflammation and protect the brain and heart** [R, R, R, R].

Limited intake of animal products, saturated fat, and refined sugar likely contribute to the health benefits of the Mediterranean diet [R].

How it helps

People who eat a Mediterranean diet may be at decreased risk of multiple sclerosis [R, R].

In people with this condition, adherence to a Mediterranean diet may reduce disease severity, disability, and fatigue while improving quality of life, body composition, and mental health [R, R, R, R, R, R, R, R, R, R, R].

Components of this diet such as fruits, vegetables, and fish may be responsible for its beneficial effects.

6

Exercise At Least One Hour a Day

IMPACT 3 / 5

EVIDENCE 3 / 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

A review of 45 trials involving 2,250 individuals with multiple sclerosis (MS) found that aerobic training (AT) improved cardiorespiratory fitness, functional capacity, balance, and reduced fatigue perception. Yoga, virtual reality, and AT were effective for balance, while aquatic exercise, virtual reality, and AT improved walking ability. Another study of 966 MS patients showed that both AT and resistance training (RT) were equally effective in improving walking tests and reducing fatigue. VO2max testing in 1,137 individuals revealed that aerobic training may increase VO2max by up to 3.5 mL·kg(-1)·min(-1) in PwMS. Sensorimotor training was recommended for mild disease and aerobic exercise for severe disease in improving quality of life. Aquatic exercise was most effective for reducing MS-related fatigue. Further research is needed on climbing as an exercise therapy [R, R, R, R, R, R, R].

Aerobic exercise improves cardiovascular fitness and may help reduce fatigue, which is common in multiple sclerosis patients.

7

Airway Muscle Training

IMPACT 3 / 5

EVIDENCE 2 / 5

How to implement

Perform airway muscle training exercises daily for at least 30 minutes. This can involve using specific devices designed to resist airflow in and out, thereby strengthening the respiratory muscles, or practicing breathing exercises that focus on inhaling and exhaling against resistance. Consistency is key, so aim to integrate this practice into your daily routine for ongoing respiratory health.

TYPICAL STARTING DOSE

30 minutes

Description

Airway muscle training is exercise that builds strength in the throat and tongue muscles. This can involve anything from controlled breathing to singing long notes. People use airway muscle training to improve [R, R, R, R]:

- Sleep apnea
- Respiratory conditions like COPD
- Exercise performance

How it helps

A Cochrane review of 6 trials and 195 patients, found low-quality evidence that resistive inspiratory (but not expiratory) muscle training is moderately effective post-intervention for improving predicted maximal inspiratory pressure in people with mild to moderate multiple sclerosis. In a non-placebo-controlled trial of 36 relapsing-remitting multiple sclerosis patients, an 8-week respiratory muscle training program improved inspiratory and expiratory muscle strength, respiratory function, fatigue, and quality of life [R, R].

8

Transcutaneous Electrical Nerve Stimulation (TENS)

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Apply TENS unit electrode pads around the area in pain; begin with the device set to a low setting and gradually increase intensity to a comfortable level. Use the device for 15-30 minutes per session for pain relief, and it can be used multiple times a day as needed.

TYPICAL STARTING DOSE

30 minutes

Description

TENS is a therapy that uses low-level electrical currents to relieve pain by stimulating the nerves. It's commonly used as a non-invasive method to manage various types of pain, such as musculoskeletal pain or chronic pain conditions.

How it helps

In people with multiple sclerosis, TENS may help with central pain and spasticity [R, R].

9

Dietary Omega-3 Fatty Acids

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Incorporate foods high in omega-3 fatty acids into your diet daily. This includes eating fish such as salmon, mackerel, and sardines at least twice a week. Alternatively, include a tablespoon of flaxseed oil or chia seeds in your daily diet.

Description

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

There are three major types of omega-3s: ALA, EPA, and DHA. **EPA and DHA are vital for mental and heart health** [R, R, R].

Fatty fish are rich in EPA and DHA. They include [R]:

- Salmon
- Tuna
- Herring
- Sardines

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

How it helps

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

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

10

Paleo Diet

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Adopt a diet that includes lean meats, fish, fruits, vegetables, nuts, and seeds, resembling the diet of our hunter-gatherer ancestors. Exclude all dairy products, legumes, grains, added sugar, and processed foods. This should be a consistent dietary approach, not a short-term diet, to observe its benefits on health and well-being.

Description

The paleo diet, also known as the caveman diet, emphasizes whole foods such as lean meats, fish, fruits, vegetables, nuts, and seeds while excluding processed foods, grains, and dairy. It is believed to support weight management and reduce the risk of chronic diseases by focusing on foods more in line with our ancestors' diets.

How it helps

Several studies explored the impact of the modified Paleo diet on multiple sclerosis management. Results showed clinical improvements, highlighting its potential efficacy. A pilot study emphasized the positive effects of a multimodal therapy, including the Paleo diet, on fatigue in these patients. The Paleo diet, combined with exercise and stress management, was linked to improvements in mood and cognitive function in progressive multiple sclerosis patients [R, R, R, R].

11

Biotin

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

For adults, take a biotin supplement of 30 to 100 micrograms daily. This can be consumed in a single dose with a meal to improve absorption. It is recommended to continue daily for optimal benefits on hair, skin, and nail health.

TYPICAL STARTING DOSE

30 mcg

Description

Biotin, also known as vitamin B7, is an essential nutrient that plays a key role in metabolizing carbohydrates, fats, and proteins. It is important for maintaining healthy hair, skin, and nails and supporting overall metabolic function.

A **biotin supplement** of up to 30 micrograms per day can be taken to meet needs not achieved through diet.

How it helps

In a placebo-controlled trial of 889 individuals with multiple sclerosis, supplementation with high-dose biotin improved walking time for those with progressive multiple sclerosis but might have increased the risk of laboratory test interferences [R].

12

Progressive Muscle Relaxation

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Set aside at least 10-15 minutes daily in a quiet, comfortable spot where you won't be disturbed. Start by tensing the muscles in your feet for 5 seconds, then relax for 30 seconds, and progressively work your way up through the major muscle groups of your body, tensing then relaxing each for 5 and 30 seconds respectively.

TYPICAL STARTING DOSE

10 minutes

Description

Progressive Muscle Relaxation is a relaxation technique involving the systematic tensing and releasing of muscle groups to reduce muscle tension, stress, and anxiety. Regular practice can lead to improved physical and mental relaxation.

Progressive muscle relaxation is a relaxation technique focused on releasing muscle tension. In this technique, you focus on tensing and relaxing different parts of your body, one after the other, to relieve stress R, R].

It is common to start with the toes and slowly work your way up to the neck and head. Try to focus on a single muscle group at a time (for example, the calf muscles). Tense these muscles for 5-10 seconds, then relax for 20-30 seconds before moving on to the next muscle group [R, R].

How it helps

In 5 non-placebo-controlled trials of 268 patients with multiple sclerosis, practicing progressive muscle relaxation for 6-12 weeks reduced pain, fatigue, perceived stress, kinesiophobia, blood pressure, and salivary cortisol, while improving sleep quality and health-related quality of life [R, R, R, R, R].

13

CBD

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take a CBD supplement in a dosage ranging from 10 to 40 milligrams per day. Start with the lowest dose and gradually increase it based on your body's response. This can be taken orally in the form of capsules, edibles, or oil drops under the tongue. For ongoing issues, such as anxiety or chronic pain, it may be used daily, while for acute issues, it might be used as needed.

TYPICAL STARTING DOSE

10 mg

Description

CBD is a non-psychoactive compound found in cannabis plants and is used in various forms, including oils and creams. It may have potential benefits for pain relief, anxiety reduction, and overall relaxation, although more research is needed to fully understand its effects.

Cannabidiol (CBD) is a compound found in cannabis. Unlike its cousin THC, **CBD is not psychoactive and can't get you "high"** [R].

People use CBD to:

- Reduce anxiety [R, R]
- Relieve pain [R, R, R]
- Prevent seizures [R]
- Improve sleep [R]

How it helps

A meta-analysis of 7 studies and 298 patients with multiple sclerosis concluded that CBD improves neuropathic pain in this condition [R].

Three meta-analyses (the most recent one with 9 trials and 1128 patients) found that an oral spray combining CBD and THC improves neuropathic pain and spasticity in patients with multiple sclerosis [R, R, R].

Please note: *CBD can interact with medications and raise the levels of liver enzymes. It may not be safe for pregnant women. Never use CBD without consulting your doctor. Also, make sure to verify the legality of CBD in your country or state* [R, R, R, R, R].

14

Mindfulness Meditation

IMPACT 2 / 5

EVIDENCE 2 / 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

A meta-analysis of 14 trials involving 937 participants found that mindfulness-based interventions significantly improved quality of life in multiple sclerosis patients, especially in mental health. The overall effect size for quality of life measures was moderate, with the largest impact on mental health aspects [R].

Another meta-analysis of 18 trials revealed that mindfulness- and acceptance-based interventions moderately improved quality of life, coping, and attention in multiple sclerosis patients, with a significant effect on memory. Follow-up showed a substantial impact on quality of life but no notable effect on mindfulness [R].

15

Saffron

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 20 mg of saffron supplement daily. This can be taken at any time of the day, with or without food.

TYPICAL STARTING DOSE

20 mg

Description

Saffron is a spice derived from the stigma of the saffron crocus flower, and is native to the Mediterranean and Asia. Its main compounds include crocin, picrocrocin, and safranal, which may contribute to its antioxidant properties and potential mood-enhancing effects.

Saffron is a yellow spice praised for its color, taste, and potential health benefits [R].

Saffron is rich in antioxidants such as *crocin*. Researchers are looking into its potential benefits for [R, R, R, R]:

- Gut conditions
- Heart health
- Mental health

How it helps

In a study on 43 relapsing-remitting multiple sclerosis (RRMS) patients, a 12-month treatment with saffron pills significantly reduced serum levels of MMP-9 (a T-cell migration facilitator) and increased TIMP-1 (an MMP-9 inhibitor). This suggests a potential role for saffron in MS treatment by modulating these biomarkers [R].

16

Inosine

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Inosine is typically available in capsule or tablet form, with doses often ranging between 500 mg and 2,000 mg per day, split into two doses. Since inosine can affect uric acid levels, regular monitoring of uric acid is advisable for long-term use. Taking inosine with food and a full glass of water may help improve absorption and reduce any gastrointestinal discomfort. For those using it to support athletic performance or neurological health, timing the doses consistently each day can help maintain stable levels in the body.

Description

Inosine is a naturally occurring nucleoside composed of hypoxanthine attached to a ribose sugar. By regulating the essential nucleotide adenosine, it plays an important role in various biological processes, including energy metabolism and RNA formation.

Inosine is found in certain foods and can also be synthesized in the body from purines. As a supplement, it may be used to improve:

- Gout
- Energy and recovery
- Neurological health
- Immune system regulation

How it helps

Uric acid may help slow the progression of degenerative diseases. Raising its levels with inosine has been successfully tested in people with:

- Multiple sclerosis [R]
- Parkinson's disease [R, R, R]
- Multiple system atrophy [R]

Please note: Inosine should be used to raise uric acid levels only under the supervision of a qualified healthcare provider since elevated uric acid levels can lead to serious health issues such as gout and kidney stones.

17

Hatha Yoga

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice Hatha Yoga for 60 minutes at least twice a week. Choose a quiet, comfortable space and consider guided sessions for beginners or those unfamiliar with the poses. Consistency over a period of months to years is beneficial for appreciating its full effects.

TYPICAL STARTING DOSE

1 hour

Description

Hatha yoga is a gentle and accessible form of yoga that combines physical postures, breathing exercises, and meditation. Practicing hatha yoga regularly can promote flexibility, stress reduction, and overall physical and mental well-being.

How it helps

A clinical trial involving 60 women with multiple sclerosis divided them into a case group, which practiced pain-managing Yoga for three months, and a control group with no intervention. After Yoga therapy, the case group showed significant improvements in physical pain management (P=0.007) and quality of life (P=0.001) compared to the control group. Yoga can be beneficial for multiple sclerosis patients' pain relief and quality of life [R].

18

Curcumin BCM95

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 500 mg of BCM-95 curcumin twice daily with meals to ensure better absorption. Continue this regimen for at least 8 to 12 weeks to evaluate its benefits on your condition.

TYPICAL STARTING DOSE

1000 mg

Description

Curcumin BCM95 is a bioavailable form of curcumin that may enhance the absorption and effectiveness of curcumin in the body. It is often used in supplements to harness the potential health benefits of curcumin.

How it helps

In a placebo-controlled trial of 80 individuals with relapsing-remitting multiple sclerosis, those receiving curcumin alongside interferon beta-1a did not show significant differences in terms of new/enlarging lesions or clinical parameters compared. However, there was a lower proportion of patients with active lesions at month 12 in the curcumin group, which was not sustained at month 24 [R].

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

19

Self-Hypnosis

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice self-hypnosis for 20-30 minutes daily. Find a quiet, comfortable place where you won't be disturbed. Close your eyes, take deep breaths, and focus on positive affirmations or imagery that addresses your specific needs, such as reducing stress or pain management.

TYPICAL STARTING DOSE

20 minutes

Description

Self-hypnosis involves using relaxation techniques and focused attention to enter a state of heightened suggestibility, often for the purpose of self-improvement or managing certain conditions like stress or pain.

How it helps

In a study with 15 multiple sclerosis patients, 16 sessions of chronic pain treatment were given, including education, self-hypnosis, cognitive restructuring, and a combination of hypnosis and cognitive restructuring. Results showed self-hypnosis (HYP) had the most beneficial impact on average pain intensity, while the combination treatment (CR-HYP) was also effective [R].

A randomized clinical trial with 60 multiple sclerosis patients evaluated self-hypnosis for pain control. Results showed reduced pain intensity and improved quality initially, but effects weren't sustained after 4 weeks]R].

20

Blood Flow Restriction Training

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Wrap a blood flow restriction (BFR) band or cuff around the upper portion of your limbs (arms or legs) at a pressure that feels tight but not painful, aiming for a perceived tightness of 7 out of 10. Engage in low-intensity resistance training, such as lifting weights that are 20% to 30% of your one-rep max, or perform bodyweight exercises. Do this for 15-30 minutes, 2-3 times a week. Always release the bands after each exercise set to restore normal circulation.

TYPICAL STARTING DOSE

15 minutes

Description

Blood flow restriction (BFR) training is a specialized fitness and rehabilitation technique that involves applying pressure to restrict blood flow to specific muscles during exercise. This is typically achieved using cuffs or wraps placed on the limbs and then inflated to a controlled pressure. By temporarily reducing blood flow while allowing arterial inflow, BFR training creates a unique physiological response. It induces metabolic stress and muscle fatigue, leading to muscle growth and strength gains, even with lighter weights.

BFR is widely used in rehabilitation settings to aid in the recovery of injured individuals, helping them rebuild muscle strength without overloading compromised areas. It also has applications in improving muscular endurance and may have potential cardiovascular benefits, such as lowering blood pressure and enhancing vascular function. However, it should be performed under the guidance of a trained professional, as it's not suitable for everyone and has specific safety considerations.

How it helps

In a non-placebo-controlled trial of 24 patients with multiple sclerosis, receiving 12 rehabilitation sessions with BFR-empowered low-intensity interval walking exercise over 6 weeks improved gait speed better than walking alone [R].

21

Aromatherapy

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Select essential oils like lavender, peppermint, or eucalyptus. Use a diffuser to disperse the scent into your room for 30-60 minutes at a time, up to 3 times a day. Alternatively, apply a few drops diluted in a carrier oil directly to your skin, such as on your temples or wrists, twice a day.

TYPICAL STARTING DOSE

30 minutes

Description

Aromatherapy is a holistic practice that uses the scents and aromas of essential oils to promote physical, mental, and emotional well-being. It is often used for relaxation, stress reduction, and to address various health concerns through inhalation or topical application of essential oils.

Aromatherapy uses concentrated plant extracts known as **essential oils**. They can be inhaled using a diffuser (a device that releases small amounts of oil into the air) or applied to the skin using a roller [R].

Lavender is a decorative flower and a calming herb and its essential oil is commonly used in aromatherapy. People use it to [R, R, R]:

- Reduce anxiety [R]
- Improve sleep quality [R, R]
- Relieve pain [R, R]

Essential oils can be harmful if not used properly. Tips for using them safely include [R, R]:

- Diluting them properly using a plant-based carrier oil (such as olive oil or almond oil)
- Using diffusers in a well-ventilated area for a maximum of 1 hour
- If using on the skin, testing a small area first and waiting a day before using more
- Keeping essential oils away from candles or other heat sources

How it helps

In a placebo-controlled trial of 60 women with multiple sclerosis, receiving aromatherapy with lavender essential oil improved working memory [R].

22

Breathing Techniques

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice deep breathing exercises for 10 minutes daily, preferably in a quiet space where you won't be disturbed. Sit or lie down in a comfortable position, slowly inhale through your nose, allowing your chest and lower belly to rise, hold the breath for a moment, and then exhale slowly through your mouth or nose. This can be done at any time of day to reduce stress and improve focus.

TYPICAL STARTING DOSE

10 minutes

Description

Breath awareness and specific breathing techniques, such as deep breathing or mindfulness-based practices, can help reduce stress, improve focus, and enhance overall mental well-being. These techniques are valuable tools for managing anxiety and promoting relaxation.

Most breathing techniques involve taking slow and even breaths. Their main goal is to prevent rapid breathing (**hyperventilation**) [R].

Breathing techniques tend to help with [R, R, R]:

- Stress
- Anxiety
- Sleep problems
- Asthma

One example is the **Buteyko breathing technique**. It's often used by people with asthma or other conditions that affect the lungs [R].

Another example is **yogic breathing**. **Yoga** is a practice that combines breathing techniques with exercise and meditation [R, R].

How it helps

In a non-placebo-controlled trial of 48 patients with multiple sclerosis, performing breathing exercises 2x/day for 2 months improved lung function (vital capacity and forced vital capacity) [R].

23

Iyengar Yoga

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Attend a 90-minute Iyengar yoga class at least once a week. Choose a class led by a certified Iyengar yoga instructor to ensure proper guidance and technique adherence.

TYPICAL STARTING DOSE

1 hour

Description

Iyengar yoga is a style of yoga that emphasizes proper alignment and the use of props to support poses. It can help improve flexibility, balance, and mental well-being through precise and controlled movements.

How it helps

In a non-placebo-controlled trial of 69 subjects with multiple sclerosis, participating in a 6-month iyengar yoga class reduced fatigue as effectively as aerobic exercise [R].

24

Whey Protein

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Mix one scoop (approximately 25-30 grams) of whey protein powder with 8-12 ounces of water, milk, or your preferred beverage. Consume this drink 1-2 times per day, ideally post-workout or as a meal replacement.

TYPICAL STARTING DOSE

25 g

Description

Whey protein is a complete protein derived from milk during cheese production. It is rich in essential amino acids and is used to support muscle recovery, promote muscle growth, and provide a convenient protein source for athletes and fitness enthusiasts.

Whey is the liquid that separates from milk when cheese is made. Whey protein is full of amino acids (protein building blocks) that the body needs [R, R].

Whey protein usually comes in the form of a powder that can be added to soft foods and drinks. People often use it to help with [R, R]:

- Athletic performance
- Nutritional deficiencies

How it helps

In a double-blind, placebo-controlled study with MS patients, adding moderate levels of tryptophan (TRP) to whey protein resulted in a fast, dose-dependent increase in plasma TRP levels. However, it did not significantly affect mood states. Cognitive tasks, particularly memory recall for positive words, improved with the lowest TRP dose, while executive functions remained unaffected. This suggests that TRP supplementation enhances memory processes in MS patients but does not impact mood [R].

25

PEMF

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

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

Description

PEMF, or Pulsed Electromagnetic Field therapy, involves the use of electromagnetic fields to stimulate cellular activity within the body. This therapy is believed to help improve circulation, reduce pain and inflammation, and enhance cellular function.

How it helps

In a placebo-controlled trial of 44 patients with multiple sclerosis, applying PEMF therapy for 4 weeks improved fatigue, gait performance, severity of depression, and quality of life [R].

26

Strength Training

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

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

Description

Strength training, also called resistance or *anaerobic* training, contracts the muscles against an external resistance for short periods of time. This helps gain muscle strength, tone, and mass. This can include activities like weight lifting, pushups, and crunches.

Strength training, also known as resistance training, is a type of physical exercise that uses resistance to build strength, anaerobic endurance, and size [R]. Some of the most common strength training methods include [R]:

- Weight lifting
- Bodyweight exercises like push-ups, pull-ups, squats, and lunges.
- Resistance bands
- Plyometrics or explosive force exercises

The benefits of strength training are numerous, and include [R]:

- Increased muscle strength
- Improved bone health
- Reduced risk of injury
- Improved balance and coordination
- Enhanced mood
- Boost metabolism

Consult with a doctor before starting any new exercise program, especially if you have any health conditions.

How it helps

A study with 27 articles and 966 participants found that Aerobic Training (AT) and Resistance Training (RT) are equally effective in improving physical function and reducing fatigue in people with multiple sclerosis (PwMS). Other outcomes were inconclusive. Clinicians can choose either modality for these improvements [R].

27

Ginger

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a 500 mg ginger supplement daily, preferably with a meal to enhance absorption and minimize potential stomach discomfort.

TYPICAL STARTING DOSE

500 mg

Description

Ginger is a versatile spice known for its potential anti-inflammatory and digestive benefits. It may help alleviate nausea, reduce muscle soreness, and support gastrointestinal comfort when consumed as part of a balanced diet.

Ginger root is a cooking spice and a traditional remedy. People mostly use it to relieve [R]:

- Nausea
- Menstrual cramps
- Joint pain

How it helps

A 12-week study on ginger supplementation in relapsing-remitting MS patients found significant improvements in disability, quality of life, neurofilament light chain, IL-17, and NLR compared to a placebo group. No significant changes in BMI and MMP-9 were observed [R].

28

Guided Imagery

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

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

TYPICAL STARTING DOSE

30 minutes

Description

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

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

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

How it helps

In a double-blind clinical trial with 60 multiple sclerosis patients, guided imagery significantly reduced fatigue and stigma while improving mood compared to the control group. A similar study found comparable results [R, R].

29

Pistachios

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate a handful of pistachios (about 1-2 ounces) into your daily diet. You can add them to your breakfast cereals, salads, or simply snack on them throughout the day. Do this regularly for ongoing heart health benefits and to aid in maintaining a balanced diet.

Description

Pistachios are a type of nut native to Asia but grown extensively in the Mediterranean. They are packed with healthy fats, fiber, protein, and various vitamins and minerals, like vitamins C, B6, and E, as well as potassium, copper, and iron. They are also rich in antioxidant and anti-inflammatory compounds, which can help lower cholesterol levels and support weight management.

The pistachio (*Pistacia vera L*), known as **the “green nut"**, is a nut native to Asia but widely cultivated in the Mediterranean. Pistachios have **low fat content** and high levels of [R, R, R]:

- Unsaturated fats
- Vitamins (C, B6, E, K, thiamin)
- Minerals (Potassium, copper, iron, and magnesium)

Pistachios also have a high **antioxidant and anti-inflammatory** effect [R].

How it helps

In a phase I randomized, placebo-controlled clinical trial on multiple sclerosis patients, PEGylated nanoliposomes containing pistachio unsaturated oils increased levels of DHA and EPA, reduced MMP-9 levels, and promoted a Th2-biased immune response with decreased inflammation. Patients also experienced fewer relapses, improved disability scores, and reduced T2 lesions [R].

30

Alpha-Lipoic Acid

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 600-1800 mg of alpha-lipoic acid daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

600 mg

Description

Alpha-lipoic acid is a natural antioxidant found in almost every cell in your body. People use alpha-lipoic acid to help with issues like skin aging, weight loss, and high blood sugar [R, R, R].

People use alpha-lipoic acid to help with [R, R, R, R]:

- Complications of high blood sugar
- Skin aging
- Weight loss
- Carpal tunnel syndrome

How it helps

A study examined the effects of lipoic acid on gait and balance in a two-year pilot study of 21 patients with secondary progressive multiple sclerosis. It found that lipoic acid improved walking performance, particularly in participants with lower baseline disability, but did not significantly affect balance metrics [R].

Another study investigated the pharmacokinetics, tolerability, and effects of oral lipoic acid on MMP-9 and sICAM-1 in multiple sclerosis patients. Results suggest that lipoic acid is generally well-tolerated and may reduce serum MMP-9 and sICAM-1 levels [R].

Alpha-lipoic acid can protect against oxidative stress, which is thought to play a role in nerve damage associated with multiple sclerosis.

31

Retinyl Palmitate

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take retinyl palmitate as a dietary supplement, usually found in capsule or liquid form. For general health and to support Vitamin A levels, adults can take 2500 to 5000 IU daily with a meal that contains fat (for better absorption). Do not exceed the recommended dose without medical advice, especially if pregnant or planning to become pregnant.

Description

Retinyl palmitate is a fat-soluble form of vitamin A that is essential for good vision, skin, and immune function. It has also been shown to have some anticancer properties.

How it helps

A double-blind randomized trial with 39 multiple sclerosis patients examined the impact of daily retinyl palmitate (vitamin A) supplementation for 6 months. The experimental group showed a significant decrease in IFN-γ and T-bet gene expression, indicating that vitamin A supplementation may help rebalance Th1 and Th2 cells [R].

32

Maintain Optimal Vitamin D Levels

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Check your vitamin D levels, they should ideally be in the 30-66 ng/mL range. If your levels are lower than that, take a vitamin D supplement, 1000-4000 IU daily, to reach an optimal range.

TYPICAL STARTING DOSE

1000 iu

Description

Vitamin D, often referred to as the "sunshine vitamin," can be synthesized by the skin when exposed to sunlight, as well as being found in fish, eggs, and fortified milk. It helps regulate calcium absorption, promoting strong bones and a healthy immune system. Vitamin D deficiency can lead to conditions like rickets in children and osteoporosis in adults.

Your body needs vitamin D for strong bones. Vitamin D also plays a role in [R]:

- Mood
- Immunity
- Heart health
- Blood sugar control

Sunlight is our main source of vitamin D. Experts recommend getting at least **5-15 minutes of midday sun, 2-3 times per week**. People with darker skin and those living at high latitudes may need longer periods of sun exposure [R, R].

Foods like fish, eggs, and fortified milk provide small amounts of vitamin D. **People lacking vitamin D should consider taking a supplement** [R].

How it helps

Genetically predicted lower levels of vitamin D may be associated with an increased risk of multiple sclerosis [R, R, R, R, R, R, R, R, R, R].

However, other studies have not indicated a benefit to vitamin D supplementation other than alleviating fatigue for those with multiple sclerosis [R, R R].

Please note: *Experts recommend getting 600-800 IU of vitamin D per day. Medical bodies recommend against taking more than 4,000 IU per day* [R].

33

Whole-Body Vibration

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Stand, sit, or lie on a machine with a vibrating platform for about 15 minutes a day, three times a week. Make sure to start with a lower intensity and gradually increase as you get more accustomed to the vibrations.

TYPICAL STARTING DOSE

15 minutes

Description

Whole-body vibration involves standing, sitting, or lying on a vibrating platform to stimulate muscle contractions. It's used in fitness routines and rehabilitation for improving muscle strength, circulation, and balance, and may benefit conditions like osteoporosis. No specific chemical compound or nutrient is associated with whole-body vibration.

Whole-body vibration is a form of exercise and treatment utilizing a vibrating platform upon which a person stands or performs various exercises. It creates vertical, oscillating vibrations with frequencies and amplitudes that can be controlled by the user [R].

Whole-body vibration is used for a variety of purposes, including [R]:

- Weight loss
- Boosting strength
- Improving balance/coordination
- Boosting mood

How it helps

A meta-analysis of seven randomized controlled trials involving 250 multiple sclerosis patients found potential for improved walking endurance with whole-body vibration training in those with low disability [R].

34

Autogenic Training

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice autogenic training for 10-15 minutes daily, ideally in a quiet, comfortable space where you won't be disturbed. Sit or lie down in a comfortable position, close your eyes, and focus on calming your mind and body through self-suggested affirmations. Repeat this routine daily for at least 2-3 months to observe beneficial effects on stress reduction and relaxation.

TYPICAL STARTING DOSE

10 minutes

Description

Autogenic training is a relaxation technique that involves self-suggestion and progressive muscle relaxation to promote relaxation, reduce stress, and alleviate symptoms of anxiety and tension.

Autogenic training is a relaxation technique that a person may carry out on their own [R, R].

Autogenic training uses 6 exercises that take the mind’s attention to bodily sensations such as warmth and heaviness. The exercises involve guided imagery and verbal cues (e.g. "My arm is very heavy") to [R, R]:

- Relax the body
- Quiet and calm the mind
- Increase energy

How it helps

In a non-placebo-controlled trial of 22 multiple sclerosis patients, a 10-week autogenic training program improved energy and vigor, and reduced limitations due to physical and emotional issues compared to the control group [R].

35

Music Therapy

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Engage in music therapy sessions for at least 30 minutes a day, three times a week. These sessions can involve listening to music, playing an instrument, singing, or writing songs, facilitated by a certified music therapist if possible.

TYPICAL STARTING DOSE

30 minutes

Description

Music therapy is a therapeutic approach that uses music to address physical, emotional, cognitive, and social needs. It can improve mental health, enhance emotional expression, and support overall well-being.

Music therapy is a form of therapy that involves making, reflecting on, and/or listening to music. It can be applied individually or in groups and may not require the presence of a therapist [R].

Music therapy provides tools for body relaxation and positive imagery. It aims to improve communication, quality of life, and well-being [R, R].

How it helps

In a non-placebo-controlled trial of 20 patients with multiple sclerosis, receiving music therapy slightly improved expiratory muscle strength. Receiving, neurologic music therapy 3x/week for 8 weeks enhanced the effectiveness of cognitive rehabilitation in a non-placebo-controlled trial of 30 patients with multiple sclerosis [R, R].

Listening to music can stimulate the brain and potentially slow down the cognitive decline associated with multiple sclerosis. Additionally, the rhythmic patterns found in music can help improve coordination and mobility issues.

36

Avoid Air Pollution

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Stay indoors on days when air quality indexes (AQI) indicate high pollution levels, which are often reported by weather services or government environmental agencies. **Install air purifiers** in your home, especially in bedrooms, to reduce indoor pollutants. Limit outdoor exercise when air pollution warnings are issued, opting for indoor activities instead.

Description

Avoiding air pollution by reducing exposure to pollutants in the environment is essential for respiratory and overall health. It can help lower the risk of respiratory diseases, cardiovascular conditions, and other health issues associated with poor air quality.

While city life is convenient in a lot of ways, it comes with some health hazards. Cars, factories, and other sources increase air **pollution** [R].

Air pollution plays a role in [R, R, R, R, R]:

- Lung disease
- Heart disease
- Diabetes
- Asthma
- Skin conditions

How it helps

A meta-analysis of 6 studies found a significant association between PM10 (particulate matter with aerodynamic diameter ≤ 10) and multiple sclerosis (5.8 higher risk). No such correlation was observed for PM2.5, NO2, CO, O3, C6H6, or proximity to major roads [R].

37

Palmitoylethanolamide (PEA)

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

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.

Description

Palmitoylethanolamide (PEA) is a naturally occurring fatty acid amide. It is a compound found in various tissues of animals, including humans. PEA has been a supplement for the past couple of decades, and is utilized for its potential anti-inflammatory and pain-relieving properties.

Palmitoylethanolamide (**PEA**) is a compound naturally made by the body to help combat inflammation [R].

It's also made by plants and other animals. Good sources of PEA include [R]:

- Soy lecithin
- Soybeans
- Egg yolk
- Peanuts

How it helps

In a placebo-controlled trial of 29 patients with relapsing-remitting multiple sclerosis experiencing adverse effects from interferon-β1a therapy, supplementation with ultramicronized PEA showed promise in alleviating pain and improving quality of life [R].

38

Deep Breathing

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice deep breathing exercises for 5-10 minutes at least twice a day, ideally in the morning and before bed. Sit or lie down in a comfortable position, slowly inhale through your nose, allowing your chest and lower belly to rise, hold the breath for a moment, and then exhale slowly through your mouth or nose.

TYPICAL STARTING DOSE

5 minutes

Description

Deep breathing techniques, such as diaphragmatic or abdominal breathing, can promote relaxation, reduce stress, and improve lung capacity. Regular deep breathing exercises can contribute to overall mental and physical well-being by reducing tension and increasing oxygen supply to the body.

How it helps

In a randomized trial with 48 multiple sclerosis patients, those doing breathing exercises with a positive expiratory pressure device for two months showed improved lung function, particularly in vital capacity and forced vital capacity [R].

39

Climbing

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Engage in climbing activities, such as rock climbing, bouldering, or indoor wall climbing, two to three times per week, each session lasting for about an hour. Begin with easier routes and gradually progress to more challenging ones as your strength and skill improve.

TYPICAL STARTING DOSE

1 hour

Description

Climbing is a great way to get a full-body workout, improve your balance and coordination, and reduce stress. It can also help you build strength, endurance, and confidence.

How it helps

In a study with 20 subjects with multiple sclerosis, 10 weeks of sports climbing and yoga did not significantly improve spasticity. Climbing led to a 25% reduction in EDSS pyramidal functions score, while there were no differences in executive function. Yoga improved selective attention by 17%, and climbing reduced fatigue by 32.5%, but neither had a significant impact on mood [R].

Climbing helps improve muscle strength, balance, and coordination, which can counter the muscle weakness and fatigue oftentimes experienced in multiple sclerosis. Moreover, it provides a form of aerobic exercise that can enhance overall well-being, mood, and cognitive health.

Please note: Climbing injuries are common and can be challenging to diagnose. Climbers typically get injured on their fingers, and if they have been injured before, they are more likely to get hurt again. Seek medical attention if you experience pain after practicing [R].

40

N-Back Training

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

To implement n-back training, practice this cognitive exercise for 20 minutes daily over a period of at least 4 weeks. Use a computer program or mobile app designed specifically for n-back tasks, choosing a difficulty level that challenges you without causing frustration.

TYPICAL STARTING DOSE

20 minutes

Description

N-back training is a cognitive training exercise that involves memory and attention tasks, which may help enhance working memory, cognitive skills, and mental sharpness when practiced regularly.

How it helps

In a non-placebo-controlled trial of 29 patients with multiple sclerosis and 29 healthy controls, computerized N-back training improved neuroplasticity [R].

41

Pomegranate Seed Oil

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 2 to 3 grams of pomegranate seed oil daily, either in capsule form or as a liquid, ideally divided into two doses. Continue this supplementation for at least 12 weeks to observe potential benefits.

TYPICAL STARTING DOSE

2 g

Description

Pomegranate seed oil is extracted from the seeds of the fruit and is rich in fatty acids, primarily punicic acid. It has been utilized traditionally for centuries in its native regions from the Mediterranean to Asia. It is rich in antioxidant compounds like punicalagins, anthocyanins, and punicic acid. It is used in skincare and haircare products for its moisturizing and potential anti-inflammatory properties.

How it helps

In a placebo-controlled-trial of 30 multiple sclerosis patients, suplementation with a nano-formulation of pomegranate seed oil (GranaGard) showed a trend of improved verbal and cognitive testing during the first 3 months [R].

42

L-Threonine

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 500 mg to 3 grams of L-threonine supplement daily, with water, preferably with meals to improve absorption. The exact dosage depends on individual health conditions and goals. Consult with a healthcare provider for personalized advice. This regimen can be followed indefinitely as part of a balanced diet to support overall health.

TYPICAL STARTING DOSE

500 mg

Description

L-threonine is an essential amino acid that is important for the production of proteins and neurotransmitters. It may also help to improve cognitive function, reduce stress, and protect against heart disease.

How it helps

In a trial with 26 multiple sclerosis patients, 7.5g of threonine daily reduced spasticity without side effects. It enhanced spinal cord inhibition, offering a non-sedating, non-toxic spasticity management approach [R].

43

Pranayama (Yoga Breathing)

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice pranayama for 10 to 15 minutes daily. Choose a quiet, comfortable spot where you won't be disturbed. Begin with simple techniques like Ujjayi (Ocean Breath) or Anulom Vilom (Alternate Nostril Breathing), gradually working your way up to more advanced techniques. Consistency is key for observing benefits.

TYPICAL STARTING DOSE

15 minutes

Description

Pranayama is a yogic practice involving controlled and mindful breathing techniques. It is believed to enhance mental clarity, reduce stress, and improve respiratory health by optimizing the flow of life force energy (prana) in the body.

How it helps

In a non-placebo-controlled trial of 60 women with multiple sclerosis, practicing pain-managing yoga methods (pranayama, hatha, and raja yoga, 90-min sessions, 8x/month for 3 months) reduced physical pain and improved quality of life [R].

44

Stability Training

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Integrate stability exercises into your workout routine 2-3 times per week. These exercises include activities such as using a stability ball, performing balance exercises on a balance board, or doing body-weight exercises that focus on balance and core strength, such as planks and single-leg stands. Spend approximately 20-30 minutes per session focusing on these exercises.

TYPICAL STARTING DOSE

30 minutes

Description

Stability training is a form of exercise that focuses on enhancing core strength and balance through targeted movements and exercises, often incorporating equipment like stability balls, balance boards, or resistance bands. It helps improve overall stability and posture while reducing the risk of falls and injury.

How it helps

A study of 69 women with multiple sclerosis found that a 10-week core stability training program significantly improved balance, particularly for those with high disability scores [R].

45

Cognitive-Behavioral Therapy (CBT)

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Schedule weekly sessions with a certified cognitive-behavioral therapist for a period of 5 to 20 weeks. Engage actively in exercises assigned by your therapist both during sessions and as homework to apply CBT strategies to daily life.

Description

Cognitive-behavioral therapy (CBT) is a psychotherapeutic approach that has been effective in treating various mental health conditions by helping individuals identify and change negative thought patterns and behaviors. It is widely used for conditions like depression, anxiety, and phobias.

Psychotherapy (talk therapy) involves talking about your health with a licensed therapist. It may improve the way you react to certain experiences [R].

Talk therapy is a great way to improve many conditions, including [R, R, R, R]:

- Depression
- Anxiety disorders
- PTSD
- OCD
- Substance use disorder
- Bipolar disorder

Cognitive-behavioral therapy (CBT) is a type of talk therapy. CBT aims to change the way you think about your life and yourself. Through CBT, a therapist can help you develop healthy coping mechanisms [R].

How it helps

Helps in managing the psychological challenges such as depression and anxiety that can accompany multiple sclerosis.

46

Exercise Therapy

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Begin by consulting with a physical therapist to assess your condition and create a personalized exercise plan. Follow the prescribed exercises consistently, focusing on areas needing improvement, such as strength, flexibility, or mobility. Start with gentle exercises, gradually increasing the intensity as you build strength. Ensure you perform the exercises correctly to avoid injury. Regularly check in with your therapist to adjust the plan based on your progress and feedback. Stay committed to the routine for the best results.

TYPICAL STARTING DOSE

1 hour

Description

Exercise therapy is a tailored approach to physical activity designed to improve mobility, strength, and overall health. It is often used to rehabilitate injuries, manage chronic conditions, and promote cardiovascular fitness.

How it helps

Exercise Therapy can improve strength, mobility, and overall fitness in people with multiple sclerosis, which may help reduce fatigue and improve daily function.

47

Aquatic Exercise

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

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.

TYPICAL STARTING DOSE

1 hour

Description

Aquatic exercise involves physical activity performed in water, such as swimming, water aerobics, or aquatic therapy. It is gentle on the joints, making it suitable for individuals with mobility issues, and can help improve cardiovascular fitness and muscle strength.

Aquatic exercise is any type of low-impact physical activity performed in a pool. In this type of cardio exercise, water helps the body float, which reduces gravity and makes the practice more comfortable and tolerable [R, R].

Compared to land-based exercise, aquatic exercise may be better by [R]:

- Reducing the stress and impact on joints
- Lowering fracture risk

Hence, it is usually **recommended for the elderly**. Aquatic exercise is also suitable for people who don't know how to swim [R].

How it helps

Reduces the impact on joints while providing resistance training, beneficial for muscle strength, and may help manage MS symptoms.

48

Acceptance and Commitment Therapy (ACT)

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Participate in Acceptance and Commitment Therapy (ACT) sessions with a licensed therapist weekly for a minimum of 8 to 12 weeks. During this period, engage in daily ACT exercises at home as recommended by your therapist, such as mindfulness practices and writing exercises that help you connect with your values and accept your thoughts without judgment.

Description

ACT is a type of psychotherapy that focuses on accepting one's thoughts and feelings while committing to actions that align with personal values. It is used to improve mental well-being and treat conditions like anxiety and depression.

How it helps

Promotes psychological flexibility which may help in coping with the chronic nature of multiple sclerosis.

49

Vitamin D and Calcium

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take 600 IU of vitamin D and 1000 mg of calcium daily. For adults over 70 years, the vitamin D intake should be increased to 800 IU daily. These supplements can be taken together or separately, usually with a meal to enhance absorption, and it is advisable to continue this regimen as part of your daily routine indefinitely unless advised otherwise by a healthcare provider.

Description

Vitamin D plus calcium supplements typically combine vitamin D, often sourced from sunlight exposure or dietary sources, with calcium, primarily found in dairy products and leafy greens. This combination is used to promote bone health, reduce the risk of osteoporosis, and support overall musculoskeletal well-being.

How it helps

Vitamin D helps regulate the immune system and may reduce the frequency of relapses in multiple sclerosis. Calcium is often paired with Vitamin D to support bone health, which can be compromised due to reduced mobility and long-term medication use.

50

Limit Saturated Fat

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

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.

Description

Limiting saturated fat intake is crucial for managing cholesterol levels and reducing the risk of heart disease. Choosing lean protein sources and incorporating unsaturated fats into the diet supports cardiovascular health and overall well-being.

How it helps

Lowering saturated fat intake may help manage cholesterol levels and support heart health.

51

Walking

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate at least 30 minutes of brisk walking into your daily routine, aiming for a minimum of five days a week. This can be done in one continuous session or broken into shorter periods, such as three 10-minute walks throughout the day.

TYPICAL STARTING DOSE

30 minutes

Description

Walking is a low-impact form of exercise that can contribute to cardiovascular fitness, weight management, and improved overall health. It is used to support physical activity goals, enhance mood, and promote better cardiovascular health.

How it helps

Regular walking can help improve mobility and balance. It also contributes to better overall physical health, which is important for managing multiple sclerosis.

52

Mindfulness-Based Stress Reduction (MBSR)

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

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

Description

Mindfulness-Based Stress Reduction (MBSR) is a structured program that teaches mindfulness techniques to reduce stress and improve overall mental and emotional health. MBSR has been shown to help individuals cope with chronic pain, anxiety, and other stress-related conditions.

How it helps

Mindfulness-Based Stress Reduction (MBSR) can help manage stress and improve mental well-being in people with multiple sclerosis by promoting relaxation and the ability to cope with symptoms.

53

Physical Therapy

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

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

Description

Physical therapy is a therapeutic practice focused on optimizing physical function and mobility through specialized exercises, manual techniques, and therapeutic modalities. It helps individuals recover from injuries, manage chronic conditions, and improve overall physical well-being by enhancing strength, flexibility, and pain management.

Physical therapy (**physiotherapy**) helps people regain or maintain their ability to move [R].

Physical therapy can involve [R]:

- Joint or muscle exercises
- Corrective movements
- Massage
- Education and advice

People mainly use physical therapy to help with [R, R]:

- Pain and injury
- Stroke recovery
- Chronic health conditions
- Headaches

Mirror therapy uses a mirror placed between the arms or legs. The image of a moving arm or leg gives the illusion of normal movement in the affected one. This therapy stimulates different brain regions and aims to improve mobility [R].

Constraint-induced movement therapy is another type of physical therapy. It consists of restraining the healthy leg or arm to increase the use of the affected one [R].

How it helps

Personalized programs can help improve balance, strength, and function, and reduce MS symptoms.

54

Neurofeedback

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

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

Description

Neurofeedback is a therapeutic technique that helps individuals regulate brain activity, potentially improving focus, reducing anxiety, and enhancing cognitive function by providing real-time feedback on brainwave patterns.

How it helps

A cross-sectional study involving 58 MS patients examined the relationship between SDMT performance, EEG theta/beta ratio, and components. Patients with slower SDMT speed had a higher theta/beta ratio, particularly increased frontal theta power. Neurofeedback aimed at reducing the frontal theta/beta ratio remained stable across sessions but showed reductions in theta power during active training blocks. Frontal EEG theta activity can be considered an inverse marker of processing speed in MS [R].

55

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

Enhances balance, flexibility, and strength with a low impact on the body, suitable for MS patients.

56

Meditation

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Set aside 10-20 minutes each day in a quiet space without distractions to practice meditation. Focus on your breath or perform guided meditation using an app or audio track.

TYPICAL STARTING DOSE

30 minutes

Description

Meditation is a mindfulness practice that can reduce stress, improve mental clarity, and promote relaxation. Regular meditation is associated with numerous mental and emotional health benefits, including reduced anxiety and enhanced emotional well-being.

Meditation is a relaxation technique that trains your mind to focus and redirect your thoughts. Some of the main types of meditation are [R]:

- Mindfulness
- Focused
- Transcendental
- Mantra
- Moving

People use meditation to improve [R, R]:

- Stress and anxiety
- Mood
- Sleep disturbances
- Pain

How it helps

Alleviates stress and may enhance quality of life by promoting relaxation and mental calmness.

57

Art Therapy

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Participate in art therapy sessions, which can include activities such as painting, sculpting, or drawing, for 1-2 hours per week. These sessions can be done either in group settings guided by a trained art therapist or individually, depending on your comfort level and goals. It is beneficial to engage in this practice consistently for several months to observe the therapeutic benefits.

TYPICAL STARTING DOSE

1 hour

Description

Art therapy is a type of therapy that encourages free self-expression and reflection through [R]:

- Painting
- Drawing
- Clay modeling

It may be combined with mindfulness. Mindfulness is the practice of being aware of the present moment without any judgment [R].

Art therapy is used to improve [R]:

- Self-esteem
- Self-awareness
- Emotional resilience
- Social skills

How it helps

Fosters self-expression and can relieve stress, aiding in emotional well-being for individuals with multiple sclerosis.

58

Omega-3 (Fish Oil)

IMPACT 0 / 5

EVIDENCE 0 / 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

2000 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

Omega-3 fatty acids in fish oil have anti-inflammatory properties that may help manage multiple sclerosis symptoms.

59

Avoid L-Serine Supplements

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Do not consume supplements that contain L-serine. This means checking the labels of any dietary supplements you are considering or currently taking to ensure they do not list L-serine as an ingredient.

Description

L-Serine is a type of supplement often taken to promote brain health. But not everyone should take them because they might interfere with certain existing health conditions or medications. So, for safety, it's best to stick to getting nutrients directly from a balanced diet unless advised otherwise by a health professional.

How it helps

Genetically higher l-serine levels may be causally associated with an increased risk of MS. [R]

Next Steps

Remember, your genes only tell one important part of your health story!

Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

Your lab results

Your lab results are impacted by the combined effect of your genes, environment and lifestyle.

Lab tests will give you the best picture of your current health status, while your genes provide insight into your health predispositions and which recommendations are best for you.

Lymphocytes (Absolute)	1.48 x10^9/L	1 · 1.5 · 3.7 · 4	9 Nov 2025
Vitamin B12	687 pg/mL	200 · 400 · 1000 · 1100	9 Nov 2025
Vitamin D, 25-Hydroxy, Total	58.59 ng/mL	10 · 20 · 30 · 75 · 150	9 Nov 2025
hs-CRP	1.6 mg/L	0 · 0.5 · 3 · 100 · 500	9 Nov 2025