

Peripheral Neuropathy

Disease Report

REPORT CATEGORIES —



PAIN



NERVE HEALTH

Sample Client

Report date: 15 January 2026

Powered by

 omicse Edge

Table of Contents

03 How this works

- 04 Impact
- 05 Evidence
- 06 Some things to keep in mind

07 Introduction

08 Your genetics

09 Your recommendations

33 Next Steps

- 33 Your Lab Results

DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg



How this works

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



Similarly, our Trait Reports look at how your DNA influences your traits.



Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

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



We use artificial intelligence and machine learning to analyze all this information.
We then summarize your results as a risk score or display it on a gauge.

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

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



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs.
The following icons tell you which category a recommendation falls into:



Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):



Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

- 5 / 5
- Recommendations that are considered effective and generally recommended by experts and medical bodies.
-
- 4 / 5
- Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.
-
- 3 / 5
- Recommendations that are considered possibly effective and have many studies supporting them
-
- 2 / 5
- Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.
-
- 1 / 5
- Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.
-
- 0 / 5
- No evidence in humans.

Genotype-specific Evidence

- High-quality
- Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, a few large clinical trials, or a meta-analysis).
- Medium-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).
- Low-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).
- Indirect
- A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).
- In theory
- A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

Peripheral neuropathy refers to the **conditions that result when nerves that carry messages between the body and the brain or spinal cord become damaged or diseased**. These peripheral nerves are responsible for:

- Motor functions
- Sensory feedback
- Autonomic functions (e.g., blood pressure regulation)

When damaged, they can cause a variety of symptoms depending on the affected nerve type, including:

- Numbness
- Tingling
- Pain
- Muscle weakness
- Sensitivity to touch
- Impaired coordination

Risk Factors and Genetics

Diabetes is the most common cause of peripheral neuropathy. However, other conditions can also lead to it, including:

- Infections (e.g., HIV/AIDS, Lyme disease, shingles, Epstein-Barr virus)
- Chronic kidney or liver disease.
- Autoimmune Diseases (e.g., rheumatoid arthritis and lupus)
- Vitamin deficiencies (e.g., vitamin E, B1, B6, B12)
- Certain cancers

Factors that might increase the risk or cause peripheral neuropathy include:

- Traumatic injuries
- Exposure to toxins (e.g., alcohol, heavy metals)
- Certain medications (e.g., chemotherapy drugs, HIV drugs)
- **Genetics**



TYPICAL LIKELIHOOD

Typical likelihood of having peripheral neuropathy based on 1,673 genetic variants we looked at

Your Recommendations

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

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

	DOSAGE		DOSAGE		
1	Methylfolate	400 mcg	2	Vitamin E	200 iu
3	Thiamine Supplements	100 mg	4	Avoid Arsenic Exposure	
5	Avoid Cadmium Exposure		6	Avoid Lead Exposure	
7	Carnosine	1000 mg	8	Acetyl-L-Carnitine	500 mg
9	Alpha-Lipoic Acid	600 mg	10	Agmatine	1 g
11	Massage	30 minutes	12	Physical Therapy	30 minutes
13	B Vitamins		14	Benfotiamine	300 mg
15	Topical Capsaicin		16	Dietary Vitamin B12	
17	L-Carnitine	1 g	18	Vitamin B12	100 mcg
19	Omega-3 (Fish Oil)	2000 mg	20	Aerobic Exercise (Cardio)	1 hour
21	Acupuncture	1 hour	22	Stretching	15 minutes
23	Balance And Mobility Training	30 minutes	24	Strength Training	1 hour
25	Vitamin B12 And Folate		26	Stress Management Therapy	1 hour

1



Methylfolate

IMPACT

4 / 5

EVIDENCE

3 / 5

How to implement

Take an L-methyl folate supplement (400-800 micrograms daily), ideally with a meal, to improve absorption. This dosage is recommended for adults, including pregnant women, to support overall health, especially to reduce the risk of neural tube defects in developing fetuses. Continue daily use as part of your regular supplement routine.

TYPICAL STARTING DOSE

400 mcg

Description

Folate, a B-vitamin, is crucial for DNA synthesis, cell growth, and the formation of red blood cells. Adequate folate intake supports overall health and reduces the risk of neural tube defects during pregnancy.

Vitamin B9 (*folate*) plays an essential role in [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Making DNA
- Metabolism
- Energy production

SelfDecode recommends L-methylfolate as the preferred folate supplement for those who need one. It is superior to folic acid because it doesn't require activation, but the research is still ongoing [\[R\]](#), [\[R\]](#).

How it helps

In 53 studies, peripheral neuropathy (PN) was linked to lower B12 levels, and increased methylmalonic acid and homocysteine levels. B12 treatment showed minor symptom improvement, while B1 treatment had more significant symptom relief [\[R\]](#).

This meta-analysis involving 16 studies on serum folate and 18 studies on serum B12 levels in type 2 diabetes patients with neuropathy (DPN) reveals reduced folate and B12 levels compared to those without DPN. This association was particularly strong in the Chinese population, highlighting the importance of monitoring these vitamin levels in T2DM patients. Further research in specific patient groups is warranted [\[R\]](#).

2



Vitamin E

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take 200 IU of Vitamin E daily as a supplement, preferably with a meal that contains fat to enhance absorption.

TYPICAL STARTING DOSE

200 iu

Description

Vitamin E is a fat-soluble antioxidant found in various foods, such as nuts and seeds. It is known for its ability to protect cells from oxidative damage, support immune function, and may play a role in skin health. Vitamin E supplements are used to bolster antioxidant defenses and may be beneficial for conditions related to oxidative stress.

[Vitamin E](#) is an antioxidant important for the immune system and for heart health [\[R\]](#).

Plant-based foods have the most vitamin E. These include [\[R\]](#):

- Wheat germ
- Sunflower seeds
- Almonds
- Plant oils

Adults need about **15 mg** of vitamin E per day [\[R\]](#).

How it helps

Vitamin E supplementation has been studied for its potential in preventing or reducing peripheral neuropathy, particularly chemotherapy-induced peripheral neuropathy (CIPN). The key findings from human studies are:

- A study by Argyriou et al. (2006) found that vitamin E supplementation (300 mg twice a day) significantly reduced the incidence of paclitaxel-induced peripheral neuropathy in cancer patients, indicating its protective effect against nerve damage caused by chemotherapy [\[R\]](#).
- Another randomized trial by Argyriou et al. (2005) demonstrated that vitamin E (600 mg/day) had a neuroprotective effect in patients receiving cisplatin, paclitaxel, or their combination, reducing the incidence and severity of chemotherapy-induced neuropathy [\[R\]](#).
- A meta-analysis by Eum et al. (2013) supported the neuroprotective effects of vitamin E (300 - 600 mg/day) in preventing CIPN, particularly in patients receiving cisplatin, with no reported adverse effects due to vitamin E supplementation [\[R\]](#).
- However, a contrasting meta-analysis by Huang et al. (2016) found that vitamin E supplementation did not significantly decrease the incidence of CIPN, highlighting the need for further research to confirm the role of vitamin E in CIPN prevention [\[R\]](#).

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 pregnant people. Those who have heart disease, bleeding disorders, or other conditions may also need to avoid them. Consult your doctor before taking vitamin E supplements [\[R\]](#).

3



Thiamine Supplements

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take thiamine supplements orally, starting with a dose of 100 mg daily. This can be taken with or without food, but consistently at the same time each day for at least one month to help improve deficiency symptoms.

TYPICAL STARTING DOSE

100 mg

Description

Your doctor may recommend thiamine supplements. You can also discuss magnesium supplements with your doctor if your magnesium levels are low [\[R\]](#).

How it helps

A systematic review of 87 articles found that the prevalence of peripheral neuropathy among chronic alcohol abusers is 46.3% when confirmed via nerve conduction studies. Risk factors include total lifetime alcohol dose, genetics, male gender, and type of alcohol consumed. The exact pathogenetic mechanisms are unclear, but vitamin supplementation, especially B-vitamins like thiamine, may be a potential management strategy. [\[R\]](#)

4

Avoid Arsenic Exposure

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Use a water filter certified to remove arsenic if you rely on well water, opt for arsenic-tested rice or rice products, and avoid using contaminated pesticides or herbicides in gardening or farming. Test your home for arsenic if you live in an area known for high levels of arsenic in soil or water. Limit consumption of foods known to accumulate arsenic such as rice and rice-based products, especially if you are pregnant, nursing, or preparing meals for young children.

Description

Avoiding arsenic exposure is essential for preventing potential health risks associated with arsenic contamination in drinking water and foods. Chronic exposure to arsenic has been linked to various health issues, including cancer and cardiovascular problems.

Arsenic is a [heavy metal](#) naturally found in the environment. It is used for mining, fracking, and industrial applications, such as the production of pesticides and wood preservatives, and the use of fossil fuels [\[R\]](#).

The main sources of exposure to arsenic are contaminated [\[R\]](#), [\[R\]](#), [\[R\]](#):

- **Drinking water**
- **Rice** and fish
- Air

Long-term exposure to high amounts of arsenic may be linked to health problems, including [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Skin disorders
- Heart disease
- High blood pressure
- Stroke
- Diabetes
- Cancer

Please note: *Soaking, washing until clear, and cooking rice with a high (1:6) water-to-rice ratio may help reduce rice’s arsenic content* [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

A double-blind controlled study examined individuals exposed to arsenic trioxide in a copper-smelting factory. They categorized subjects into three groups of peripheral neuropathy: none, subclinical, and clinical. The subclinical group had no symptoms but showed reduced nerve conduction, while the clinical group had symptoms and abnormal electrophysiology. Both clinical and subclinical groups had higher arsenic levels in urine, hair, and nails, with a greater incidence of neuropathy compared to unexposed controls [\[R\]](#).

A study examined peripheral neuropathy cases due to arsenic-containing dust exposure. Of 238 participants, 118 unexposed and 85 exposed were analyzed. 3.4% unexposed and 15.3% exposed had peripheral neuropathy. Exposure levels didn't differ significantly, but certain tests showed differences. This indicates a strong link between arsenic dust exposure and peripheral neuropathy [\[R\]](#).

PERSONALIZED TO YOUR GENES

Exposure to arsenic may increase the risk of peripheral neuropathy more in people with your [XRCC3](#) gene variant [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
XRCC3	rs861539	GG	

5



Avoid Cadmium Exposure

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

To avoid cadmium exposure, refrain from smoking or exposure to secondhand smoke, reduce consumption of foods high in cadmium like shellfish, liver, kidney meats, and certain leafy vegetables, and use ceramic or glass containers instead of plastic when microwaving food. Limit intake of cadmium-contaminated workplace air by using protective gear if you work in battery manufacturing, welding, or metal refining industries.

Description

Avoiding cadmium exposure is essential to prevent potential health risks associated with this heavy metal, such as kidney damage and increased cancer risk. Reducing exposure to cadmium-containing products and contaminated foods is crucial.

Heavy metals are elements naturally found in the environment. They are also used for agricultural, industrial, and medicinal purposes. Some can even be found in small amounts in your body [\[R\]](#), [\[R\]](#).

Long-term exposure to high amounts of heavy metals can be harmful to your health [\[R\]](#), [\[R\]](#).

Heavy metals that are most often linked to health problems include [\[R\]](#), [\[R\]](#):

- Lead
- Cadmium
- Arsenic
- Chromium
- Mercury

How it helps

Older workers with long-term cadmium exposure showed a 54% prevalence of peripheral polyneuropathy compared to 11% in controls in a study [\[R\]](#).

6



Avoid Lead Exposure

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Prevent lead exposure by using cold water for drinking and cooking, regularly cleaning dust from windowsills and floors, and ensuring that your home's paint is not chipping if it was built before 1978. For occupations involving potential lead exposure, use protective gear and follow safety protocols. Test your home for lead if it's old or you're concerned about contamination.

Description

Lead is a heavy metal. It is naturally found in the environment in small amounts [\[R\]](#), [\[R\]](#).

Exposure to lead can cause it to build up in the body. A buildup of lead can contribute to oxidative stress and cell damage. This is called **lead poisoning** [\[R\]](#), [\[R\]](#).

Lead is no longer used in the manufacturing of some products like gasoline and paint. However, it can still be found in some pipes, batteries, and the wall paint of older homes [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

A study analyzed nerve conduction in individuals exposed to lead and found reduced conduction velocity in multiple nerves and longer latencies but no change in nerve or muscle potentials. Lead's effects on nerve conduction began at blood levels of 33.0 microg/dL [\[R\]](#).

7



Carnosine

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 500 mg of carnosine twice daily with meals. Continue this regimen for at least 2 to 4 weeks to start noticing benefits. It can be taken as a capsule or powder form mixed with water or juice.

TYPICAL STARTING DOSE

1000 mg

Description

Carnosine is a naturally occurring compound found in muscle tissues and certain foods. It is believed to have antioxidant properties and may support muscle function and overall cellular health.

[Carnosine](#) (β -alanine-l-[histidine](#)) is a compound naturally produced by the body. We also get it from eating meat and fish. Carnosine is abundant in our [\[R\]](#), [\[R\]](#):

- **Muscles**
- Heart
- Brain
- Nose

Carnosine has several important functions in the body, including [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Being an antioxidant
- Improving muscle function
- Removing toxic metals

During exercise, **carnosine may prevent muscle fatigue and boost athletic performance**. It may also help improve sugar metabolism [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

In a pilot study with 65 colorectal cancer patients receiving the FOLFOX-6 regimen, those in Arm B (FOLFOX-6 + L-carnosine) experienced significantly reduced neuropathy (grade 1: 56.7% vs. 35.5%, grade 2: 3.3% vs. 61.3%) compared to Arm A (FOLFOX-6 alone). L-carnosine also decreased NF- κ B and TNF- α levels, had anti-inflammatory, anti-oxidative, and anti-apoptotic effects, and increased Nrf-2, suggesting neuroprotection against oxaliplatin-induced peripheral neuropathy [\[R\]](#).

8



Acetyl-L-Carnitine

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

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

TYPICAL STARTING DOSE

500 mg

Description

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

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

[Acetyl-L-carnitine](#) may help with [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Nerve damage
- Mood problems
- Cognitive decline

Doctors are also studying its potential effect on drug addiction [\[R\]](#).

How it helps

A study explored the effectiveness of acetyl-L-carnitine (ALC) in reversing chemotherapy-induced peripheral neuropathy. In patients with paclitaxel and/or cisplatin-induced neuropathy, ALC showed promise, with 73% experiencing at least one WHO-grade improvement in neuropathy severity [\[R\]](#).

9



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

The use of alpha-lipoic acid, both alone and in combination with an acetylcholinesterase inhibitor (ipidacrine hydrochloride), reduced peripheral neuropathy symptom severity in 2 placebo-controlled trials of 96 patients with breast cancer receiving paclitaxel [\[R, R\]](#).

Alpha-lipoic acid may help through its antioxidant properties.

How to implement

TYPICAL STARTING DOSE

1 g

Description

How it helps

Agmatine also blocks NMDA receptors and inhibits the release of certain neurotransmitters, potentially reducing neuropathic pain sensations. Its neuroprotective properties may help preserve nerve function in neuropathic conditions.

In an uncontrolled trial of 11 patients with painful small fiber neuropathy, taking agmatine sulfate (2.67 g/day) for 2 months **reduced pain by 46.4%** [R].

11



Massage

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Schedule a massage session, ideally with a licensed therapist, for 30-60 minutes, once a week. Choose a type of massage that suits your specific needs, such as Swedish for relaxation or deep tissue for muscle tension.

TYPICAL STARTING DOSE

30 minutes

Description

Massage therapy involves the manipulation of soft tissues to relax muscles, reduce stress, and alleviate pain. It can improve circulation, promote relaxation, and provide relief from various physical and mental health concerns.

If you’ve ever had a professional [massage](#), then you probably know how much good it can do. Massages may help with [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Anxiety
- Pain
- Fatigue

Reflexology is a type of massage. It involves applying pressure to specific parts of your feet or hands. In theory, by pressing on these areas, you can relieve tension from other parts of the body [\[R\]](#).

Acupressure is a similar technique, in which pressure points are used to help with stress and pain [\[R\]](#), [\[R\]](#).

How it helps

Massage therapy can enhance blood flow and relieve pain in the extremities impacted by peripheral neuropathy, offering symptom relief.

12



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

Physical therapy can help strengthen muscles and improve joint function, which may alleviate pain and enhance mobility in people with peripheral neuropathy.

13



B Vitamins

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a B vitamin complex supplement once daily, preferably with your morning meal to enhance absorption. The supplement should include a range of B vitamins such as B1 (thiamine), B2 (riboflavin), B3 (niacin), B5 (pantothenic acid), B6 (pyridoxine), B7 (biotin), B9 (folate), and B12 (cobalamin). Ensure consistency by taking it at the same time each day.

Description

B vitamins help the body function properly. Two examples are [vitamin B9 \(folate\)](#) and [vitamin B12](#). They play essential roles in [\[R, R, R, R\]](#):

- DNA formation
- Metabolism
- Energy production

You can get these vitamins from [\[R, R, R, R, R\]](#):

- Animal products
- Green leafy vegetables
- Citrus fruits
- Fortified foods
- Supplements

Adults should be getting **400 micrograms (mcg) of folate** and **2.4 mcg of vitamin B12** every day [\[R, R\]](#).

Folate deficiency is rare but can happen in people that don’t eat enough fruits and vegetables. Alcoholics and lactating mothers may also be at an increased risk [\[R\]](#).

Vitamin B12 deficiency often takes years to develop, as the body is able to store large amounts in the liver. Groups that may be at an increased risk include [\[R, R\]](#):

- Vegans
- Pregnant women
- Older people
- People with gut issues

How it helps

B Vitamins, particularly B1, B6, and B12, are essential for nerve function and repair. Deficiencies in these vitamins can lead to nerve damage and worsen symptoms of peripheral neuropathy.

14



Benfotiamine

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 300-600 mg of benfotiamine per day, in divided doses with meals to improve absorption. This regimen should be followed daily, potentially long-term, especially for conditions like diabetic neuropathy or for general B1 vitamin supplementation.

TYPICAL STARTING DOSE

300 mg

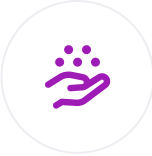
Description

Benfotiamine is a special form of vitamin B1. It's highly beneficial for the body as it helps convert the food we eat into energy. It also contributes to the overall health of our nerve cells protecting us from nerve-related diseases.

How it helps

Benfotiamine, a form of Vitamin B1, has been shown to support nerve health and reduce nerve pain by improving blood sugar control and reducing oxidative stress.

15



Topical Capsaicin

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Apply a capsaicin cream or gel to the affected area 3 to 4 times daily. Make sure the skin is clean and intact before application. Avoid contact with eyes, mouth, and other sensitive areas. Use consistently for several weeks to see improvement.

Description

Capsaicin is a compound found in chili peppers and is used topically in creams and patches for its potential to alleviate pain related to conditions like arthritis, neuropathy, and muscle soreness.

[Capsaicin](#) is the compound that makes chili peppers spicy [\[R\]](#).

People use topical capsaicin to relieve pain and oral capsaicin to aid weight loss [\[R, R\]](#).

In the short term, capsaicin causes pain. However, **if you’re exposed to a lot of capsaicin over a long period of time, it can reduce your pain sensitivity** [\[R, R\]](#).

Please note: Capsaicin may irritate the skin. Consult your doctor if the irritation is severe or lasts longer than 4 weeks. If capsaicin gets in your eyes, flush them with water immediately and consult your doctor [\[R, R, R\]](#).

How it helps

Capsaicin works by reducing the chemical in the body that transmits pain signals, providing relief from nerve pain.

16



Dietary Vitamin B12

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate foods rich in vitamin B12 into your daily diet, such as beef, chicken, fish, and dairy products. If you are vegetarian or vegan, consider fortified cereals or plant-based milks. Aim to meet the recommended dietary allowance (RDA) for adults of 2.4 micrograms of vitamin B12 per day.

Description

Vitamin B12 is important for nerve function, red blood cell production, and overall energy metabolism. It's crucial for preventing pernicious anemia and maintaining neurological health.

How it helps

Vitamin B12 is essential for the maintenance of the myelin sheath that surrounds and protects nerves. Deficiency in B12 can lead to nerve damage, so adequate intake is important for nerve health.

17



L-Carnitine

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

Description

L-carnitine is an amino acid-like compound that plays a role in energy metabolism and helps prevent toxic substances from building up in cells. It is often used in dietary supplements for its potential to support muscle recovery, reduce fatigue, and enhance athletic performance.

[L-carnitine](#) is a compound that helps you burn fat. It also prevents toxic substances from building up in cells [\[R\]](#).

Your body can usually make enough carnitine to meet its needs. You can also get it from **meat and dairy products** [\[R\]](#).

People use L-carnitine for [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Heart problems
- Overactive thyroid
- Fertility problems
- Blood sugar control
- Weight control

How it helps

L-Carnitine can help improve nerve function and reduce pain in people with peripheral neuropathy by aiding in energy production within cells.

18



Vitamin B12

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

TYPICAL STARTING DOSE

100 mcg

Description

Vitamin B12 is a water-soluble vitamin primarily found in animal-based foods like meat, fish, and dairy products. It plays a crucial role in maintaining healthy nerve cells, DNA synthesis, and red blood cell formation. Vitamin B12 deficiency can lead to anemia, neurological issues, and fatigue.

[Vitamin B12](#) is important for [\[R\]](#), [\[R\]](#):

- Building DNA
- Nervous system function
- Energy production

You can get vitamin B12 from [\[R\]](#):

- Animal products (meat, fish, eggs, and dairy)
- Fortified foods
- Supplements

Adults should be getting **2.4 micrograms** of vitamin B12 every day [\[R\]](#).

How it helps

Vitamin B12 is crucial for maintaining healthy nerves, and deficiency can lead to peripheral neuropathy; supplementation helps improve nerve function.

19



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 have anti-inflammatory properties that can help reduce nerve pain and improve nerve function in peripheral neuropathy.

20



Aerobic Exercise (Cardio)

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Engage in at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity activity each week. Distribute this time over at least 3 days per week, avoiding consecutive days of vigorous exercise to allow for recovery.

TYPICAL STARTING DOSE

1 hour

Description

Engaging in regular aerobic exercise, such as running, swimming, or cycling, offers numerous health benefits, including improved cardiovascular fitness, weight management, and mood enhancement. It supports overall physical and mental well-being while reducing the risk of chronic diseases.

Cardio, short for cardiovascular exercise, is any type of physical activity that temporarily increases your heart rate. Examples include **running, cycling, swimming, and brisk walking**.

Regular cardio exercise has many benefits for your overall health. It can help lower your risk of heart disease and diabetes, support weight loss, and improve your mood and energy levels. To get the most out of cardio, try to do it for at **least 30 minutes, 3-5 times a week**.

Interval training is a type of cardio that combines periods of high-intensity training with brief rest periods.

How it helps

Aerobic exercise improves blood circulation, which can help reduce numbness and pain in the affected areas of those with peripheral neuropathy.

21



Acupuncture

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Visit a licensed acupuncturist for a session, typically lasting between 30 to 60 minutes, once or twice a week. Depending on your specific condition, a course of treatment might range from a few weeks to several months.

TYPICAL STARTING DOSE

1 hour

Description

Acupuncture is a part of traditional Chinese medicine. It involves inserting thin needles at specific points on the body. People use it to relieve pain and allergies, as well as reduce nausea and improve sleep.

[Acupuncture](#) is a part of traditional Chinese medicine. It involves **inserting thin needles at specific points on the body**. People use it to [\[R, R, R, R, R\]](#):

- Relieve pain
- Improve sleep quality
- Relieve allergies
- Reduce nausea

How it helps

Acupuncture can stimulate nerves and muscles, potentially helping to alleviate pain and improve nerve function in people with peripheral neuropathy.

22



Stretching

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate stretching exercises into your daily routine, dedicating at least 10-15 minutes each day. Focus on major muscle groups such as the neck, shoulders, chest, back, hips, and legs. For best results, stretch both before and after other physical activities, holding each stretch for 15-30 seconds without bouncing.

TYPICAL STARTING DOSE

15 minutes

Description

Stretching involves gently elongating the muscles to improve flexibility, reduce muscle tension, and enhance joint mobility. Regular stretching can help prevent injuries, promote better posture, and increase overall physical comfort.

Stretching is a form of physical exercise that involves moving a muscle or group of muscles to their maximum range of motion. The most common types are **dynamic** (involving movement) and **static** stretching.

Stretching can help **improve flexibility, range of motion, and posture**. It may also relieve stress, reduce muscle soreness and tension, increase blood flow, and reduce the risk of injuries.

To get the most out of stretching, try to do it regularly, breathe deeply, and ease into the stretches.

How it helps

Stretching exercises can improve flexibility and reduce pain, helping to maintain mobility and function in people with peripheral neuropathy.

23



Balance And Mobility Training

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

Description

Balance and mobility training exercises, such as yoga or tai chi, can improve stability and reduce the risk of falls, particularly among older adults. These exercises enhance overall physical function.

How it helps

Balance and mobility training can help improve coordination and reduce the risk of falls, which is especially important for individuals experiencing peripheral neuropathy.

24



Strength Training

IMPACT

0 / 5

EVIDENCE

0 / 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

Strength training helps improve muscle strength and reduces pain, which can improve mobility and quality of life for people with peripheral neuropathy.

25



Vitamin B12 And Folate

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a combined supplement of vitamin B12 and folate daily. For adults, the typical dose is 2.4 mcg of B12 and 400 mcg of folate. This supplement should be taken with water and a meal to enhance absorption.

Description

Vitamin B12 and folate (vitamin B9) work together to support DNA synthesis and red blood cell formation. Both are essential for preventing megaloblastic anemia and are commonly found in a variety of foods, including leafy greens, legumes, and fortified cereals.

How it helps

Folate, along with Vitamin B12, can help in the regeneration of nerves and improve symptoms of peripheral neuropathy. These vitamins work together to promote nerve health.

26



Stress Management Therapy

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Engage in stress management therapy sessions, such as cognitive-behavioral therapy (CBT), for at least 1 hour per week over a course of 8 to 12 weeks. Techniques can include mindfulness, deep breathing exercises, and identifying stressors to develop coping strategies.

TYPICAL STARTING DOSE

1 hour

Description

Stress management therapy refers to various techniques and approaches aimed at reducing and coping with stress. It can improve mental and physical well-being by helping individuals better manage the effects of stress on their health.

How it helps

Stress management therapy can reduce stress, which may help alleviate symptoms of peripheral neuropathy, as stress can worsen pain and discomfort.

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.

	HbA1c	30 mmol/mol		29 Dec 2025
	Glucose, Fasting	97 mg/dL		9 Nov 2025
	Vitamin B12	687 pg/mL		9 Nov 2025
	Homocysteine	12.84 umol/L		9 Nov 2025
	Vitamin B6	55 ng/mL		13 Jan 2026