

How Does a B12 Deficiency Contribute to Peripheral Neuropathy?

The Drugless Doctors Approach to Evaluating and Treating B12 Deficiency Related Neuropathy



Vitamin B12 plays a major role in nerve health, nerve signaling, circulation support, cellular energy production, and protection of the nervous system. A deficiency of B12 may contribute to tingling, burning, numbness, weakness, balance problems, sensory loss, fatigue, and cognitive changes.

The Role of B12 in Nerve Protection

One of the most important functions of B12 is helping maintain the protective covering around nerves called the myelin sheath. The myelin sheath acts like insulation around an electrical wire, helping nerves transmit signals efficiently and accurately.

When B12 levels become deficient:

- nerve signaling may slow
- nerve repair may decline
- inflammation may increase
- sensory communication between the feet and brain may become impaired

Common Symptoms Associated with Low B12

- Tingling feet
- Burning feet
- Numbness
- Balance problems
- Brain fog
- Fatigue
- Weakness
- Memory changes
- Reduced sensation
- Difficulty walking
- Pins-and-needles sensations

Why Balance May Become Affected

B12 deficiency may impair proprioception, which is the body's ability to sense position and movement.

As sensory signaling declines, the brain receives less accurate information from the feet and legs. This may contribute to instability, swaying, fear of falling, or difficulty walking in the dark.

Many patients with B12-related neuropathy describe feeling disconnected from the floor.

Why Many People Develop Low B12

B12 deficiency is more common than many people realize.

Common contributors include:

- aging
- low stomach acid
- digestive dysfunction
- metformin use
- acid-blocking medications
- poor absorption
- restrictive diets
- chronic inflammation
- intestinal health problems
- As people age, absorption of B12 often declines significantly.

B12 and Mitochondrial Energy

Nerves are highly energy-dependent tissues.

B12 helps support:

- mitochondrial energy production
- oxygen utilization
- neurologic signaling
- cellular repair
- When B12 is low:
- fatigue may increase
- nerve recovery may slow
- neurologic symptoms may worsen

Important Clinical Insight

Some individuals may have functional B12 deficiency even when laboratory B12 levels appear technically normal. This is why additional evaluation may sometimes include:

- methylmalonic acid (MMA)
- homocysteine
- complete blood count (CBC)
- clinical symptom patterns



How We Assess B12 Deficiency in the Office

A blood test does not always accurately measure B12 deficiencies. Often, we will have patients come into the office with either excessively elevated or depleted B12 levels. We look upstream to see if they are on a proton pump inhibitor medication. The strength of these anti acid medications upset the digestive systems ability to absorb nutrients including B12. Historically those over 40 years of age usually have digestive malabsorption. We look at the serum blood marker called Globulin. Globulin statistically should be 2.7 in one's labs, if the number is above 3 or below 2, we are mindful they are having a digestive issue and potentially low B12.

Looking at the entire picture is very important, a CBC with a differential blood test (a standard test) reveals the downstream impact of a B12 deficiency. There are 3 markers that would suggest if you did in fact have a B12 deficiency; MCV (mean corpuscular volume) MCH (mean corpuscular hemoglobin) and MCHC (mean corpuscular hemoglobin concentration). Another marker found in the serum test is uric acid; if it is low this may indicate a need for B12. The best B12 is methyl cobalamin—avoid cyanocobalamin, a synthetic version. Vegetarians and especially vegans are at a higher risk for developing vitamin B12 deficiency because B12 is primarily found in animal-based foods.

We also incorporate a pair of mitts that are connected to one of the modalities fondly enough used in our treatment protocol. We turn the dial of the pair of mitts up to the highest level and place them on either the feet or hands. A patient who has sensory loss typically does not feel electrical stimulation. I ask their permission to apply the mitts to their face and much to 95% plus of the neuropathy candidates are not able to feel the sensation and are figuratively “shocked” they could not feel it in their hands/feet. If they have someone accompanying them, they are also surprised by lack of feeling.

Patient Summary

B12 deficiency may contribute to neuropathy because nerves depend on B12 for protection, signaling, circulation support, and energy production. When B12 levels become deficient, nerve communication may become impaired, potentially contributing to tingling, burning, numbness, weakness, fatigue, and balance problems.

How we treat B12 related Neuropathy

First it to establish the fact a B12 deficiency may be one of many factors that are a part of the neuropathy condition. B12 is important for nerve and red blood cell health. By the time a potential B12 is identified it is an uphill battle to correct the multiple possibilities.

First a red blood cell (RBC) has a life span of 120 day. Not only do you have to determine the deficiency, but the next step is also to correct the one of many reasons. We utilize a sublingual B12 in practice, the dosage is dependent on the blood test findings.

Once we know the levels, the next step is to determine is this, dietary choice related, poor digestion, malabsorption and or lack of proper supplementation. The protocol we use for the nerve healing aspect utilizes a comprehensive three tier approach gut restoration protocol, photo modulation light therapy and nerve regeneration.



Watch Our Neuropathy Playlist on YouTube

<https://www.youtube.com/@DruglessDoctor>

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