

Why Do Some Lyme Disease Patients Experience Tingling, Burning, or Numbness?

The Drugless Doctors Approach to Lyme Disease, Neuroinflammation, Circulation Dysfunction & Peripheral Neuropathy



Many individuals suffering from Lyme-related symptoms experience tingling, burning sensations, numbness, fatigue, hypersensitivity, brain fog, circulation changes, or balance instability.

Peripheral neuropathy associated with Lyme disease may involve far more than simply irritated nerves. In many individuals, these symptoms may reflect inflammatory stress, circulation dysfunction, mitochondrial exhaustion, oxidative stress, immune activation, and altered neurologic signaling physiology.

Symptoms may fluctuate over time and may involve multiple body systems simultaneously.

How Lyme Disease May Impact the Nervous System

Lyme disease is associated with *Borrelia burgdorferi*, a bacteria transmitted primarily through tick exposure.

In some individuals, inflammatory stress associated with Lyme disease may affect:

- sensory nerves
- circulation physiology
- mitochondrial function
- connective tissue
- inflammatory pathways
- neurologic signaling
- autonomic nervous system physiology

This may contribute to:

- tingling
- burning sensations
- numbness
- balance instability
- fatigue
- hypersensitivity
- muscle weakness
- fluctuating neurologic symptoms

Inflammation, Circulation & Neuropathy

Inflammatory stress may impair circulation while simultaneously irritating nerves.

When circulation becomes impaired:

- oxygen delivery may decline
- nerve sensitivity may increase
- recovery physiology may slow
- inflammation may worsen
- burning sensations may intensify

Reduced nitric oxide physiology and impaired microcirculation may also contribute to altered sensory perception and tissue stress involving the hands and feet.

Mitochondrial Stress & Fatigue Physiology

Many Lyme-related neuropathy patients also experience fatigue, weakness, poor stamina, or brain fog.

One possible contributor involves mitochondrial stress physiology.

Mitochondria are responsible for producing cellular energy. When inflammatory stress rises and circulation becomes impaired, mitochondrial output may decline, potentially contributing to:

- fatigue
- exercise intolerance
- poor tissue recovery
- brain fog
- sensory irritation
- nerve hypersensitivity

Body Signals Commonly Observed

Some individuals experiencing Lyme-related neuropathy may demonstrate:

- tingling hands or feet
- burning feet at night
- cold hands or feet
- balance instability
- gait hesitation
- hypersensitivity
- fatigue
- brain fog
- inflammatory swelling
- fluctuating symptoms
- muscle weakness
- poor exercise recovery



How We Assess B12 Deficiency in the Office

The evaluation process focuses on identifying inflammatory stress patterns, circulation dysfunction, altered sensory response, and neurologic instability.

The evaluation may include:

- thermographic circulation imaging
- nitric oxide testing
- gait evaluation
- balance testing
- sensory response evaluation
- inflammatory observations
- nutritional history
- fatigue patterns
- body signal observations
- metabolic wellness review
- toxicity questionnaire review

We also pay close attention to gait patterns and how the patient walks into the office.

Many individuals experiencing sensory instability or altered proprioception may visually compensate by looking downward toward their feet while walking. Some patients also demonstrate increased reliance upon secure footwear due to altered balance confidence or sensory changes.

Sensory Evaluation & Circulation Response

As part of the neuropathy evaluation, we assess circulation patterns, sensory response, temperature perception, and neurologic stability using several supportive observational and sensory procedures.

One of the more interesting findings observed in some Lyme-related neuropathy patients involves altered temperature perception. Patients experiencing tingling, burning, or irritated nerve symptoms may actually perceive a burning or heated sensation when cool or cold stimulation is applied to the feet.

This altered sensory response may suggest abnormal nerve signaling, irritated sensory tissue, circulation dysfunction, or altered neurologic processing involving the peripheral nerves.

Conversely, some individuals are still able to clearly recognize warmth when gentle heat is applied during portions of the sensory evaluation process. These observations may provide important clues regarding sensory nerve integrity, circulation patterns, and nerve hypersensitivity physiology.

We also incorporate sensory stimulation mitts connected to one of the supportive modalities utilized in the practice. The intensity is gradually increased while the mitts are applied to the hands or feet.

Patients with more advanced sensory dysfunction may demonstrate reduced perception of the stimulation. With patient permission, the mitts may briefly be applied to an area of more normal sensation, such as the face, allowing comparison between normal and altered sensory response patterns.

Many patients are surprised by the degree of sensory change demonstrated during the evaluation.

The Drugless Doctors Three-Tier Supportive Strategy

The supportive strategy utilized in the practice focuses on:

- biochemical support
- biovascular circulation support
- biostructural stabilization

The objective is supporting circulation, nitric oxide physiology, tissue oxygenation, mitochondrial activity, inflammatory balance, metabolic stability, and nerve recovery physiology.

One of the foundational supportive modalities utilized in the practice is FDA-cleared photobiomodulation therapy designed to support circulation and microcirculation involving sensory tissues.

When Further Evaluation May Be Appropriate

If you are experiencing:

- | | |
|-----------------------|-----------------------------------|
| • tingling | • hypersensitivity |
| • numbness | • fluctuating neurologic symptoms |
| • burning sensations | • circulation changes |
| • balance instability | • altered temperature sensitivity |
| • fatigue | • brain fog |

These findings may suggest inflammatory stress, circulation dysfunction, altered neurologic signaling, or sensory nerve irritation physiology.

A comprehensive neuropathy and circulation evaluation may help identify the physiologic stress patterns contributing to altered sensation, inflammatory stress, and impaired recovery physiology.

The earlier these patterns are identified and supported, the greater the opportunity for improved circulation, sensory stability, tissue oxygenation, and recovery physiology.

Patient Summary

Lyme-related neuropathy may involve far more than simply damaged nerves.

In many individuals, symptoms may reflect inflammatory stress, circulation dysfunction, oxidative stress, mitochondrial fatigue, nitric oxide depletion, altered sensory signaling, and impaired tissue recovery physiology.

The earlier these physiologic stress patterns are identified and supported, the greater the potential for improving circulation, tissue oxygenation, sensory stability, and overall recovery physiology.



Watch Our Neuropathy Playlist on YouTube

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

References

- Halperin JJ. Nervous system Lyme disease. Infect Dis Clin North Am.
- National Institute of Neurological Disorders and Stroke (NINDS). Lyme Disease Fact Sheet.
- Fallon BA, et al. Neurologic manifestations of Lyme disease.
- Callaghan BC, Cheng HT, Stables CL, Smith AL, Feldman EL. Diabetic neuropathy. Lancet Neurol. 2012.
- Hamblin MR. Mechanisms and applications of photobiomodulation. AIMS Biophys. 2017.
- Ignarro LJ. Nitric oxide as a unique signaling molecule in the vascular system. Proc Natl Acad Sci USA. 1992.
- Bryan NS, Loscalzo J. Nitric Oxide and the Cardiovascular System.
- Mayo Clinic Staff. Peripheral neuropathy symptoms and causes



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