

# Fiery Feet: When Nerves Are Ablaze

Burning feet sensations are one of the first signs that peripheral neuropathy might be afoot. Here's everything you need to know about what causes burning or tingling feet.

Your bedroom is dark, and the number on your clock is way smaller than the one you're supposed to see when it's time to wake up. Normally, this would be a time of deep sleep, but there you are, wide awake, your feet feeling as though they've been set aflame.

Welcome to one of the most common symptoms of peripheral neuropathy.

## Fraying Nerves Make for Fiery Feet

[Peripheral neuropathy](#) involves a wide set of symptoms, but one of the most widely-reported signs that nerve damage is beginning to take place involves burning sensations felt in the feet. Not only is this one of the most common signs that neuropathy has developed, but it's also often among the first to show up. While peripheral neuropathy isn't the only thing that can cause burning sensations in the feet, the two are very frequently linked.

Symptoms of neuropathy often start to present themselves as far away as possible from the central parts of the body – meaning your torso and midsection. This is where the *nerve bodies* live, which are the parts of your nerves that are responsible for healing and repair.

Since peripheral neuropathy mostly attacks the long *axons* – or nerve fibers, in other words – that stretch out like branches of a tree to the ends of your hands and feet, it usually

starts farthest away from those central nerve bodies. The farther away a nerve fiber gets, the harder it is to reach with helpful proteins and other healing factors sent out from those central nerve bodies.

Your feet, being the farthest away from your nerve bodies, are typically where the symptoms of nerve damage show up first.

## Potential Causes of Burning Sensations in the Feet

Most commonly, burning sensations in the feet are caused by peripheral neuropathy. Important to note about neuropathy, though, is that it usually doesn't like to party by itself. Peripheral neuropathy is a condition often experienced alongside another condition that is at the root of its existence.

[Burning feet causes](#) can be surprisingly varied, and create sensations ranging from mildly irritating to excruciatingly painful. Here are just some of the common causes of peripheral neuropathy that leads to dysesthesia (hypersensitivity) symptoms, like burning feet.

- Uremia (chronic kidney disease)
- B12 vitamin deficiency
- Alcoholism
- Lyme disease
- Hypothyroidism (low thyroid hormone levels)
- HIV or AIDS
- Amyloid polyneuropathy
- Chemotherapy drugs
- Vitamin B6 overuse
- HIV treatment medications
- Erythromelalgia (inflammation and blockage of the blood

vessels)

- Vasculitis (inflammation of the blood vessels)
- Sarcoidosis (pockets of inflammation in the organs)
- Guillain-Barre Syndrome (also known as GBS)
- Athlete's foot
- Peripheral artery disease (PAD, poor circulation)

Diabetes is by far the most common offender when it comes to causing the type of peripheral neuropathy that brings about burning feet. Poor dietary choices (many of which are, unfortunately, easily linked to a lack of relationship we have with nutritional eating, on a cultural level) can elevate blood sugar levels to the point where the toxic environment begins killing off your nerve endings, eventually leading to burning feet. Keeping a good diet and exercising regularly is the best way to maintain healthy blood sugar levels that allow you to avoid diabetes that can lead to neuropathy.

Ongoing alcohol consumption is also frequently paired up with nerve damage that goes on to cause fiery feet, and once nerve damage has set in it can be difficult to reverse (this varies from case to case). It's certainly *preventable*, though, by avoiding the overconsumption of alcohol.

If you have not already, it is best to seek a diagnosis from your medical doctor to rule out potentially serious or even life-threatening causes of your burning feet, such as end-stage kidney failure. Of the one in seven people living with chronic kidney disease today, only 10% of them know it. If your feet burn, ask your doctor to perform blood tests to rule out this highly prevalent yet often missed disease.

## **Sensory Nerves That Feel Like They're on Fire**

Your nerves perform a variety of different functions in your

body, and they're divided into three different types. Appropriately enough, **the different types of neuropathy** are mostly broken up according to which type of nerve is specifically impacted. [Motor nerves](#) (which control movement) and [autonomic nerves](#) (which control body functions like heart rate, without our conscious attention) fall victim to neuropathy too, but it's the [sensory nerves](#) that are responsible for those burning feet.

In addition to performing different functions, your nerves also come in different thicknesses, and your body's thinner nerves actually respond to neuropathy in a different way than the thicker ones do. While the thick ones have a tendency to just shut down in the presence of damage, the thinner ones have a very different response altogether. Thin nerve fibers react to neuropathy by going wildly out of control, misfiring and sending either the wrong information to your brain, or information that shouldn't even be sent in the first place.

## **Paresthesia (Phantom Pain) vs. Dysesthesia (Hypersensitivity)**

The sensory nerves that run down into your feet are not only some of the thinner nerves in your body, but they're also the farthest away from those central nerve bodies mentioned earlier. For these reasons, not only do the symptoms of peripheral neuropathy tend to show up in the feet first, but the symptoms that show up are among the most troublesome.

Painful sensory symptoms in the feet usually fall into one of two categories (people often experience both): **paresthesia** or **dysesthesia**.

Paresthesia is more commonly referred to as *phantom pain* or *phantom sensations*. This means that your nerves are misfiring, and sending information to your brain even though there isn't actually anything telling them to send this information in the

first place. Dysesthesia is another word for hypersensitivity and describes a condition in which a normal level of touch sensation (like wearing socks or having bed sheets on your feet) produces an crazy, painful response.

## Sensory Symptoms Worse at Night



Both of these conditions tend to be far worse at night. As we try to relax and go to sleep, we reduce the amount of outside stimulation our brains are getting. The less we have to think about, the less distracted we are from the painful sensations our feet have been sending us all day long.

At the same time, as our bodies prepare for sleep, our cortisol drops. Cortisol is a stress hormone that helps regulate the immune system. More cortisol circulating in your body during the day suppresses inflammation. Consequently suppressing pain. But during the night, there is less cortisol in your blood. As a result, your white blood cells readily detect and fight threats, like infections or tissue injury,

provoking symptoms of nerve damage. Just like when you are fighting a cold and feel sicker at night, and better during the day.

## **Learning Is Just the Start!**

Peripheral neuropathy can be frightening, but learning how it works is a great step in the right direction toward a better and more informed relationship with your body's nerves. Educated patients have the best outcomes. The more you know what causes nerve damage the more steps you can take to reduce the offenders of those fiery feet.

While peripheral neuropathy is certainly among the most common causes of burning sensations and pain in the feet, it's not the only one. If you suspect your burning feet are a result of damaged nerves, the good news is that dietary and lifestyle changes can help you avoid (and in most cases reverse) the underlying chronic inflammatory root cause leading to the irritating nerve damage symptoms, like burning feet.