



DANA-FARBER/BRIGHAM AND WOMEN'S CANCER CENTER

Peripheral Neuropathy

What is peripheral neuropathy?

Peripheral neuropathy is caused by damage to the peripheral nerves, the nerves most distant from the brain and spinal cord. These nerves help you feel things and move your arms and legs. When the chemotherapy damages the peripheral nerves, this is called chemotherapy-induced peripheral neuropathy (CIPN). Peripheral neuropathy can also be related or exacerbated by other causes like diabetes, vitamin deficiencies, alcohol, and neurologic diseases.

Symptoms include tingling, numbness, weakness, cramping, burning, and pain that may be constant or may come and go. Symptoms tend to start in the fingers and toes, progressing to the hands and feet and then the arms and legs. You may have difficulty feeling things that you touch, including sensing hot and cold, and it may be hard to pick things up, hold on to things, or perform tasks, such as buttoning a shirt. You may feel off balance and walking may become more difficult. After treatment has ended, symptoms may slowly get better, usually over the course of a few months. Unfortunately, sometimes the damage is permanent, and symptoms do not go away.

There are no treatments that are well known to prevent CIPN. There is no treatment for peripheral neuropathy that can fix the nerve damage. Instead, treatment is given to relieve and manage the symptoms. Treatment often involves a combination of medications, dietary supplements, and other types of therapy. Importantly, symptoms often improve within months.

Your doctor may prescribe drugs to help manage the symptoms of peripheral neuropathy, such as:

- Medications that treat nerve pain, including gabapentin, duloxetine, pregabalin, venlafaxine, or amitriptyline
- Lidocaine patches

Your doctor may recommend some dietary supplements, such as:

- A combination B vitamin
- Folic acid
- Magnesium
- Glutamine
- Alpha lipoic acid

Other treatments that may help you manage your symptoms include:

- Occupational and/or physical therapy
- Massage
- Exercise
- Guided imagery, meditation, and relaxation
- Biofeedback
- Acupuncture



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- Transcutaneous electrical nerve stimulation (TENS), in which the nerves are stimulated to release endorphins with a gentle electric wave

How can you care for yourself at home?

- Eat a well-balanced diet.
 - Avoid alcohol and smoking because these can make symptoms worse.
- Prevent falls.
 - Move rugs out of your path so you won't trip.
 - Put up rails on the walls and in the bathroom.
 - Put bathmats in the shower and bathtub.
 - Wear sturdy shoes.
 - Use a cane.
- Avoid injury.
 - If you cannot feel the gas pedal or brake, DO NOT drive.
 - Set the water heater in your home between 105 -120 degrees Fahrenheit.
 - Keep dark areas well-lit and use a night light.
- Take extra care in the kitchen and shower.
 - Use hot pads in the kitchen to protect your hands from burns.
 - Before washing dishes or entering a bath or shower, check the water temperature with a part of your body that is not affected by neuropathy, such as your elbow. Or, ask someone to make sure the water is not too hot.
- Protect your hands and feet.
 - Wear shoes with a rubber sole when you are indoors and outside.
 - Wear gloves when you are working outside or in the kitchen.
 - Check your feet for cuts every day. Sit down and use a small mirror or ask someone to check for you.
 - Use ice packs to help your hands and feet feel better.
- Ask for help.
 - Ask for help with things such as buttoning clothes, using the computer, opening jars, or holding a pen.
 - Slow down and give yourself more time to do things.
 - Ask your doctor or nurse about physical therapy to help improve balance and agility.
- Consider using integrative therapies to help manage symptoms. These therapies may include:
 - Exercise with low impact on the feet, such as swimming, biking, tai chi, or yoga
 - Acupuncture
 - Relaxation
 - Guided imagery
 - Massage