



**PERIPHERAL  
NEUROPATHY**  
(nerve damage)

## WHAT YOU NEED TO KNOW

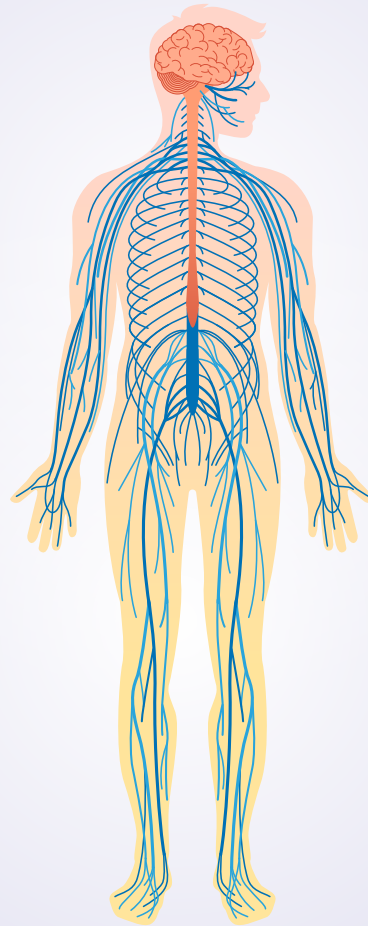
You or your loved one has been diagnosed with a type of blood cancer. You may experience side effects from the therapy you receive. Peripheral neuropathy (PN) or nerve damage is a common side effect. How can you manage it?

This fact sheet will help you:

- Learn about your nervous system and peripheral neuropathy
- Understand the symptoms and the causes
- Learn how to manage this side effect and optimize your health and well-being
- Get a list of questions to ask your healthcare team



Managing side effects is an important part of cancer treatment. Be sure to talk to your healthcare team about any side effects you may have. They can help you manage these as you go through treatment.



Central nervous system

Peripheral nervous system

**PERIPHERAL NEUROPATHY** happens when there is damage to the nerves of the peripheral nervous system.

## Your nervous system

Your nervous system is the command centre that controls everything you do, from how you think and feel to how you talk, move, and breathe. It's made up of two parts: the central nervous system and the peripheral nervous system.

The **central nervous system** includes the brain and the spinal cord. They control and coordinate most functions of your mind and body.

The **peripheral nervous system** includes the nerves that connect your brain and spinal cord to the rest of your body. These nerves send and receive information between the brain and other parts of the body. This information allows for things like feeling, moving, and regulating your heart rate.

Three types of **peripheral nerves** carry sensory and motor information to and from the central nervous system:

- **Sensory nerves** allow you to feel pain, heat, and cold
- **Motor nerves** help your muscles move
- **Autonomic nerves** regulate involuntary functions like heart rate, digestion, and breathing

## Peripheral neuropathy

Peripheral neuropathy happens when there is damage to the nerves of the peripheral nervous system. It can be caused by the treatment or the disease.

### About peripheral neuropathy

- It is involved in many conditions, including diabetes, vitamin deficiencies, kidney disease, and cancer
- Symptoms can include pain, tingling, and numbness in your feet, legs, and hands
- It can put you at higher risk for injuries, such as falls

Tell your healthcare provider right away if you have any symptoms of peripheral neuropathy.

Symptoms often get worse if they are not treated quickly.

## Symptoms of peripheral neuropathy

Symptoms can range from mild discomfort to debilitating pain that stops you from functioning normally. The type of symptom depends on the type of nerves affected: sensory, motor, or autonomic.

Depending on the type of nerves affected, you may feel:

Type of nerves	Description	Symptoms
<b>Sensory nerves</b>	Usually involves injury to the nerves in the hands, arms, feet, and legs	<ul style="list-style-type: none"><li>• Tingling, pins and needles, pain, or numbness</li><li>• Burning or warm feeling</li><li>• Sensitivity to touch</li><li>• Difficulty feeling heat or cold</li><li>• Less pain or no pain from a cut or a sore</li></ul>
<b>Motor nerves</b>	Can affect all muscles in your body and may lead to a loss of balance, tripping, and a hard time walking	<ul style="list-style-type: none"><li>• Weak or sore muscles</li><li>• Difficulty using your hands and arms to button a shirt, text, or open a jar</li><li>• Difficulty swallowing or breathing</li></ul>
<b>Autonomic nerves</b>	Includes blood vessels, stomach, intestines, liver, kidneys, bladder, genitals, lungs, pupils, heart, and sweat, saliva, and digestive glands.	<ul style="list-style-type: none"><li>• Constipation or diarrhea</li><li>• Trouble urinating</li><li>• Dizziness (from low blood pressure)</li><li>• Irregular heartbeat</li><li>• Changes in sweating (too much or too little)</li></ul>



## Cause of peripheral neuropathy

There are many reasons why you may have peripheral neuropathy. It can be caused by:

- Your cancer
- Your treatment, including chemotherapy and radiation therapy
- Tumours pressing on nerves

Other conditions can make peripheral neuropathy worse. These include myeloma, diabetes, shingles, infections, autoimmune diseases, excessive alcohol use, and more.

## Managing side effects

Learning about side effects helps you know what to expect and how to manage them. If the cause is cancer treatment, your doctor may recommend using smaller doses of the drug or stopping treatment until symptoms improve to prevent long-term nerve damage. Nerve damage caused by chemotherapy may gradually improve after treatment. Many people recover after a few months; for others, it may take years, or the problem may never fully go away.

## Treatments to manage peripheral neuropathy

There is no cure for peripheral neuropathy, but there are treatments to help manage the symptoms, including:

- Physiotherapy to improve balance and strength
- Occupational therapy to improve fine motor skills
- Massage therapy, acupuncture, and relaxation techniques
- Medication to help relieve pain and discomfort (pain medication, antidepressants, anti-seizure drugs, muscle relaxants, steroids)
- Creams or patches with numbing medicine applied directly on painful areas

Regular exercise is important for managing peripheral neuropathy. Talk to your healthcare team before you start an exercise program. Dietary supplements like a B12 vitamin and folic acid are also important. Speak to your healthcare team before you take any supplements.



## Safety tips to avoid injury

You may be at a higher risk of injuries if you have less sensation and if your hands and feet are numb or tingling. To help prevent injury, follow these tips:

### In the kitchen

- Clean up spills right away and use non-breakable dishes and cups
- Be careful with sharp objects like knives, scissors, and box cutters
- Use potholders when touching hot pots and wear rubber gloves when washing dishes

### In the bathroom

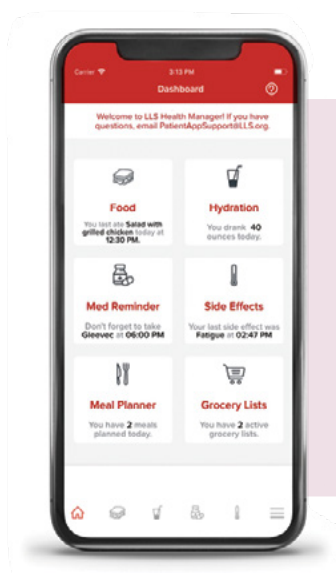
- Install grab bars in the shower and hand grips in the tub
- Use skid-free mats
- Use a thermometer to check that your shower/bath water is below 43.3°C (110°F)

### In your house

- Install handrails on both sides of stairways
- Remove small area rugs and clutter from the floor
- Keep rooms, hallways, and stairways well lit

### When outside

- Check that you can fully feel the steering wheel and the gas and brake pedals when driving; be sure that you can move your foot quickly from the gas to the brake (if you cannot, it's safest not to drive)
- Use a cane or walker if you have trouble with balance
- Avoid extreme temperatures
- Avoid wearing tight shoes or tight clothes



### Track your side effects with the LLS Health Manager App

[bloodcancers.ca/health-manager-app](http://bloodcancers.ca/health-manager-app)

Managing your side effects is an important part of cancer care. Tracking your medication, side effects, and food and nutrition intake allows you to share the information easily with your doctor to identify patterns and strategies.

## Questions to ask your healthcare team

- Is peripheral neuropathy a possible side effect of my treatment?
- What symptoms should I look for?
- What can I do to manage or prevent this side effect?
- What treatments do you recommend for related pain?
- Are there any activities I should avoid?



Your healthcare team is there to support you throughout your treatment. Be sure to contact them if you have side effects so they can be managed quickly.

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