



Peripheral Neuropathy

What is peripheral neuropathy?

Peripheral neuropathy is a condition that can cause weakness, pain or numbness in the legs, feet, arms, hands or other parts of the body. It is caused by irritation or injury to the peripheral nerves, which are nerves that are outside of the brain and spinal cord. Peripheral neuropathy can range from mild to severe and have an important impact on quality of life.

There are different types of peripheral nerves in your body, including:

- **Sensory nerves** help you feel pain, touch, temperature, position and vibration.
- **Motor nerves** help you move and maintain muscle tone.
- **Autonomic nerves** help control the function of some of your body's organs, such as your bladder or bowel.

What causes peripheral neuropathy?

In cancer patients and survivors, some chemotherapy, radiation therapy, surgery or tumors can damage nerves and lead to neuropathy. Patients with pre-existing conditions, such as diabetes or peripheral vascular disease, may already have neuropathy as a result of these diseases. If you have neuropathy and are starting cancer treatment, speak to your care team about your specific symptoms.

How do you diagnose peripheral neuropathy?

Diagnosis is based on your medical history, which includes your type of cancer, specific treatments and other pre-existing health conditions. Other testing may be needed for diagnosis.

Signs and symptoms of peripheral neuropathy

Symptoms vary from patient to patient, and depend on which nerve is damaged and whether the damage affects one nerve, several nerves or the whole body. The most common symptoms include:

Pain may be described as:

- Tingling (pins and needles sensation)
- Numbness
- Burning
- Sharp
- Stabbing
- Buzzing
- Shocking sensation
- Muscle cramps

Other symptoms:

- Trouble feeling hot or cold
- Weakness
- Dropping things
- Difficulty picking up an object, buttoning clothing, texting or tying shoes
- Tripping or falling
- Constipation
- Trouble urinating
- Difficulty swallowing
- Reduced reflexes

Typically, symptoms happen during treatment, but it is possible (though rare) for symptoms to develop years after treatment. Severe peripheral neuropathy can lead to serious health problems like changes in your heart rate and blood pressure, dangerous falls, trouble breathing, paralysis or organ failure.



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How is peripheral neuropathy treated?

There is no clear treatment that will reverse nerve damage. Treatment, though, can help keep symptoms from getting worse and often involve a combination of medications and physical activities. Talk to your doctor about medication options.

Physical therapy (PT) is one of the most effective treatments for neuropathy — it can help with balance, strength and safety. Occupational therapy (OT) can also help patients improve fine motor skills, like buttoning shirts. **Talk to your doctor about a referral to a physical and/or occupational therapist.**

Other therapies can also help with the side effects of neuropathy, including:

- low-impact exercise
- swimming
- biking
- acupuncture
- relaxation techniques
- guided imagery exercises

It is also important to avoid alcohol and smoking, as they can make neuropathy worse.

It is very important that you protect hands and feet from injury because of loss of sensation/numbness.

The following suggestions can help:

- Use gloves to protect your hands when doing yard work or household repairs.
- Be extra cautious with sharp objects.
- Use well-padded potholders when cooking.
- Inspect your fingers and feet regularly for cuts and scrapes.
- Check the weather and wear gloves and warm socks in cold weather.

- Wear shoes with a rubber sole both indoors and outdoors.
- Always use cold water first and gradually move to warmer water.

Other safety tips to consider:

- If you cannot feel the gas pedal or brake, do not drive.
- Avoid walking on uneven surfaces.
- Keep floors clear of throw rugs, cords and other obstacles.
- Consider handrails in stairways or grab bars in bathtub or near the toilet.
- If you need one, use a cane, walker or wheelchair.
- Set the water heater in your home between 105-120 degrees to avoid burns, if possible.
- Keep dark areas well lit and use a night light as needed.

Additional Resources

- Washington University Occupational Therapy: For more information, call 314-286-1669 option 3, or visit otservices.wustl.edu.
- The Foundation for Peripheral Neuropathy – A resource for patients, their families and healthcare providers: foundationforpn.org
- STAR (Sports Therapy and Rehabilitation)
BJC HealthCare: barnesjewishwestcounty.org/star

This handout is for informational purposes only. It should not be used in place of advice or instructions given by your doctor. Talk to your doctor or health care team if you have questions about your care.

Survivorship Program Mission

To improve the quality of life of cancer patients through education, research and wellness. The survivorship program supports patients, families and caregivers throughout the continuum of diagnosis, treatment and beyond.

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