Peripheral Neuropathy (Nerve Damage)

What Is Peripheral Neuropathy?

Neuropathy is irritation or damage to the nerves. Nerves are long, wire-like fibers in our body that transmit information from one area of our body to another. They carry sensations (feeling) of temperature, pressure, pain to the brain and control the movement of your arms and legs. Peripheral neuropathy is a condition in which a nerve or group of nerves have difficulty "communicating" with each other.

What causes peripheral neuropathy and how long will it last?

Certain chemotherapy drugs can cause neuropathy, especially at higher doses or after multiple doses. Chemotherapy medications that can cause neuropathy include: vincristine, vinblastine, vinorelbine, Taxol, Taxotere, oxaliplatin, bortezomib and cisplatin.

Peripheral Neuropathy can occur acutely- meaning during or shortly after receiving a treatment and last a few days, or it can be chronic, that is, long-lasting and persisting between treatments. You may experience tingling, a feeling of pins and needles, or numbness in your fingers or toes, especially in response to cold. The sensation of tingling can be triggered by eating, drinking, or touching something cold or even breathing in cold air.

Symptoms often resolve within a few days of treatment, but sometimes symptoms persist. In some, the peripheral neuropathy can become severe leading to constant numbness in the hands or feet, especially for those who have had multiple doses of chemotherapy known to cause neuropathy. It can cause difficulty doing fine motor tasks with your hands like buttoning a shirt, picking up small objects, or cause problems with balance or walking. For people whose symptoms continue after treatment is complete, these often improve or resolve within 6-12 months. Some people do experience these symptoms for a longer period of time and for some, they become permanent.

Occasionally during radiation therapy or surgery, injuries or scarring can occur, putting pressure on nerves and causing neuropathy. And, finally, tumors can put pressure on nerves or release substances that affect nerves.

What are the common symptoms of peripheral neuropathy?

When neuropathy occurs, one or several of your peripheral nerves have difficulty sensing information. This may lead to symptoms such as weakness, pain, imbalance, or numbness. These symptoms may limit your ability to safely perform daily activities such as walking or dressing.

Call your care team if you have any of the following symptoms of neuropathy:

- Arms or legs feel heavy, numb or tingling, or feel like "pins and needles"
- Tripping, falling or pain when walking
- Difficulty lifting up foot or toes
- Difficulty picking up or holding objects, or manipulating them in your hand.
- Difficulty using buttons
- Cold feeling in arms or legs
- Increased sensitivity to hot and cold

What can I do?
• Contact your care team immediately if you have any of the above symptoms. Treating nerve damage early, potentially lowering the dose, or taking a break from the chemotherapy causing the problem may prevent the symptoms from getting worse.
• Wear gloves and warm socks, especially in winter.
• **Stay Safe!** Since peripheral neuropathy may affect your mobility and ability to sense temperatures, it is important to take some simple precautions to ensure your safety. Ideas include:
  - Always wear shoes both indoors and outside.
  - If you have neuropathy in your hands, use knives, scissors, box cutters, and other sharp objects with care.
  - Protect your hands by wearing gloves when you clean, work outdoors, or do any repairs.
  - Make sure your house is well lit.
  - Keep a night light on in your room and along the path to the bathroom.
  - Cover steps and bathtub/shower with a non-skid surface.
  - Clear stairs and hall of objects.
  - Mark the edge of the step with a bright color to help determine where the step ends.
  - Use handrails.
  - Tape down the edges of all throw rugs to avoid tripping.
  - Test the temperature of the water with an area of your body that is not affected by neuropathy before any bathing and dish washing.
  - Always check your feet and shoes at the beginning and end of each day. You may not feel small pebbles or poorly fitted shoes that can irritate your foot and cause an open sore. Look for any redness or blisters that you may not feel developing.

• If you experience pain, your provider may recommend medications that are used to treat pain caused by nerve damage, such as Elavil, Pamelor, Neurotin or Lyrica. These medications may have side effects and should be closely monitored by a physician.
• Physical therapy can enhance your balance, strength and safety. Braces may be needed to help with extreme muscle weakness and instability.
• Occupational therapy can enhance fine motor coordination, such as writing, and therapists can help adapt your home to account for the changes in your situation.

It is important that you speak with you care team if you feel that you are experiencing peripheral neuropathy so that you can create a plan regarding how to manage it.