Peripheral Neuropathy Caused by Cancer Treatment

What is Peripheral Neuropathy?

Peripheral neuropathy (nerve changes) happens when there is an injury to peripheral nerves. Symptoms are caused by damage to the nerves that are further away from the brain and spinal cord. These distant nerves are called peripheral nerves. These changes most often happen to the nerves in your fingers, hands, arms, toes, feet, and legs.

There are two different types of peripheral nerves, sensory and motor. Sensory nerves help you feel pain, touch, temperature, position, and vibration. Motor nerves help you move and maintain muscle tone. Anti-cancer and chemotherapy medicines are one of the causes of these nerve changes.

Symptoms of Peripheral Neuropathy

The symptoms of peripheral neuropathy depend on the nerves that are affected. Tell your doctor or nurse right away if you notice any of these changes:

- Pain (it may be there all the time, come and go or feel like a stabbing pain)
- Numbness, loss of feeling or tingling (pins and needles) in your hands and feet
- Cold, prickly, pinching or burning feeling
- Trouble using your fingers to button shirts or tie shoes
- Changes in your ability to walk, such as having trouble picking up your feet

This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.

- Stomach pain or cramps
- Constipation
- Problems with urinating
- Jaw or throat pain

**Chemotherapy Drugs and Peripheral Neuropathy**

Chemotherapy drugs that can cause peripheral neuropathy are listed below. There are no proven ways to prevent nerve changes caused by chemotherapy treatment. Peripheral neuropathy caused by chemotherapy may or may not improve over time after treatment ends.

Chemotherapy drugs that can cause peripheral neuropathy include:

- Cisplatin
- Carboplatin
- Paclitaxel (Taxol™)
- Docetaxel (Taxotere™)
- Paclitaxel-Albumin-bound (Abraxane™)
- Ixabepilone (Ixempra™)
- Eribulin (Halaven™)
- Vincristine (Oncovin™)
- Vinblastine (Velban™)
- Bortezomib (Velcade™)
- Thalidomide (Thalomid™)
- Oxaliplatin (Eloxatin™)

**Symptoms with Common Chemotherapy Drugs**

Here is information about common chemotherapy drugs and the nerve changes they may cause.

- **Cisplatin** can cause the following symptoms:
  - Unable to tell where your hands and feet are located (this is called position sense).
  - Feet slip out of shoes or slippers that are not tied or do not come up over the top of your foot.
  - Unable to feel the floor under your feet when you walk.
  - Feel as if your bare feet have socks on them.

- **Paclitaxel, Vincristine, Vinblastine and Oxaliplatin** can decrease your ability to feel the shape of an object in your hand.

- **Paclitaxel and Vincristine** may decrease your ability to tell the difference between hot or cold temperatures.
• **Oxaliplatin** can make your jaw to feel tight or make you feel like you are unable to catch your breath. These signs can be worse when you come in contact with cold air or drink cold liquids.

• **Bortezomib and Thalidomide** can cause changes in the feeling you have in your toes, feet, fingers and hands.

If you are going to take a chemotherapy drug that can cause peripheral neuropathy, your doctor or nurse will ask you questions about your past and current illnesses. This is done to find out if you have had symptoms of peripheral neuropathy in the past. If you have had peripheral neuropathy before, you may find that symptoms start sooner and are more severe during chemotherapy treatment.

**Treatment for Peripheral Neuropathy**

• Medicines may help reduce pain in the feet, legs and arms. They usually do not bring back loss of feeling. Talk to your doctor about your pain and ways to manage it.

• To reduce your risk of infection, check your feet each day for any cuts and sores. Call your doctor for directions on how to take care of your feet if this happens.

• To lower your chance of injury, there are ways to make your environment safer. For tips on how to make your home and place of work safe, ask for the patient education handout on [Safety Tips for Peripheral Neuropathy Caused by Cancer Treatment](#).