

## **Chemotherapy Induced Peripheral Neuropathy (CIPN) Pediatrics**

Chemotherapy (chemo) is the use of drugs to fight cancer. It affects cells that grow quickly, like cancer cells. It can also affect some of your child's normal cells. Chemo, especially the drug Vincristine, can damage the nerves that go to muscles, joints, and skin. These are called peripheral nerves. Damage to these nerves is known as neuropathy. Not all children being treated with chemo will have CIPN. Many will.

Neuropathy most often affects nerves that carry sensory information: touch, pain, temperature, and vibration. It may also affect nerves that carry information for the muscles to work.

### **What will my child feel?**

Listen to what your child tells you. The first thing many children feel is a change in the way their feet or hands feel. They may feel numbness, tingling, pain, burning, cramping, or be more sensitive to cold. Many children may have trouble describing the pain. They may say it feels like they are wearing socks or gloves when they are not. They may say their hands or feet hurt or feel funny. Your child may also feel weaker or have trouble doing normal tasks like walking or writing. Very young children may not be able to describe their symptoms, so you will need to watch for signs.

### **What to Watch For**

- Change in feeling or sensation of their feet or hands: numbness, tingling, or pain. This may look like:
  - Shaking out, rubbing or wringing of hands or feet
  - Excessive chewing or biting of hands
- Change in walking:
  - Foot drop or dragging toes
  - Toe walking (most common in younger children)
  - Wider stance
  - Slower speed
  - Refusal to stand or walk (most common in younger children)
- Loss of balance or coordination:
  - Increased tripping or falling
  - Increased swaying while standing
  - Dropping things
- Trouble with fine motor skills:
  - Writing or a change in handwriting
  - Coloring
  - Zipping zippers or buttoning buttons
  - Using a scissors

### **What should you do if you notice signs of CIPN?**

Report signs and symptoms to your doctor right away. The dose of your child's chemo medicine may need to change. Sometimes your doctor may prescribe medicine to help decrease the pain and tingling. Doctors may also suggest physical and occupational therapy and foot braces. Also, make sure your home is safe for your child to prevent injuries, falls and skin breakdown.

### **What can I do to make my home safe?**

- Have your child wear lighter non slip shoes with good arch support in your house.
- Inspect your child's skin every day for redness, wounds, blisters, and cuts.
- Remove throw rugs and cords that are tripping hazards.
- Re-install baby gates for younger children.
- Use night lights.
- Use non-slip mats in the bath and shower.
- Protect your child from hot and cold temperatures (e.g., air and water).

### **Will my child have CIPN forever?**

Many of the symptoms of CIPN go away after your child is done with chemo treatment. Some children will still have symptoms for years after treatment has stopped. If this happens, please tell your doctor so your child can get physical and occupational therapy to help with these issues.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 8/2019 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#7871