



Physical Therapy and Chemotherapy-Induced Peripheral Neuropathy (CIPN)

As a survivor of cancer, rehabilitation is crucial for managing treatment side effects and improving your quality of life. One common side effect of chemotherapy treatment is chemotherapy-induced peripheral neuropathy (CIPN), which can cause significant discomfort and functional limitations.

What is Chemotherapy-Induced Peripheral Neuropathy?

CIPN is nerve damage caused by certain types of chemotherapy that affects how nerves send signals, impacting muscle movement, sensation, pain, temperature, and balance. It typically starts in the hands and feet and can affect up to 85% of patients receiving neurotoxic chemotherapy. CIPN symptoms can begin during treatment, and for some medications such as the platinum drugs, progress for several months. Signs and symptoms may persist long after chemotherapy ends.

Common Symptoms

- Numbness or tingling in hands and feet
- Burning, itching, or shooting pain
- Sensitivity to cold or touch
- Feeling like you're walking on rocks
- Difficulty with balance or walking
- Weakness
- Trouble handling small objects

Management

1. **Massage the feet and hands:** spend 5-10 minutes massaging the feet and hands daily to decrease hypersensitivity of the nerves.
2. **Resistance Band Exercise:** ankle exercises and hand exercises with a resistance band have been shown to help train the muscle to return to prior level of function.
3. **Stretching:** ankle and wrist stretching can decrease the feeling of tightness. Stretch daily, holding each stretch for 30 seconds.
4. **Walking:** The American College of Sports Medicine recommends walking at least 150 minutes per week.
5. **Work on Balance:** standing like you are on a balance beam for 10 seconds can help decrease your risk for falls.

When to Seek Help

Let your healthcare team know if you notice new or worsening symptoms, difficulty with daily activities, or if CIPN is affecting your safety or independence. Early intervention can help prevent complications and improve outcomes.

How Rehabilitation Can Help

Physiatrist can prescribe medications and treatment plans adapted to your needs. Physical and occupational therapists can provide exercises and strategies to improve balance, strength, and daily function. They can also teach you how to adapt activities and use aids to stay safe and independent.

Remember!

CIPN can be challenging, but with early intervention and a comprehensive management plan, you can improve your symptoms, balance, and quality of life. Always consult with your healthcare team to tailor these strategies to your specific needs.



International Cancer
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References: Campell KL, Winters-Stone KM, Wiskemann J, et al. Exercise Guidelines for Cancer Survivors: Consensus Statement from International Multidisciplinary Roundtable. *Med Sci Sports Exerc.* 2019;51(11):2375-2390. Doi:10.1249/MSS.0000000000002116, Duregon F, Vendramin B, Bullo V, et al. Effects of exercise on cancer patients suffering from chemotherapy-induced peripheral neuropathy undergoing treatment: A systematic review. *Crit Rev Oncol Hematol.* 2018;121:90-100. Doi:10.1016/j.critrevonc.2017.11.002, Kleckner IR, Kamen C, Gerandter JS, et al. Effects of exercise during chemotherapy on chemotherapy-induced peripheral neuropathy: a multicenter, randomized controlled trial. *Support Cancer Care.* 2018;26(4):1019-1028. Doi:10.1007/s00520-017-4013-0, Doherty DJ, Wilson CM, Boright LE. *Oncology Rehabilitation: A Comprehensive Guidebook For Clinicians.* Elsevier: Missouri; 2023, Stubblefield MD, O'Dell MW. *Synopsis of Clinical Oncology.* Springer Publishing Company. 2010. ISBN: 1936287005

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