



Neuropathy is a disorder that impairs the function of the nervous system. Peripheral Neuropathy (PN), the most common of a vast number of known neuropathies, affects the peripheral nerves, so called because they carry signals to and from the regions farthest from the brain - the arms, legs, and bowels.

According to the National Institute of Neurological Disorders and Stroke, approximately 20 million people in the U.S. suffer from some form of peripheral neuropathy.

Symptoms of Peripheral Neuropathy

The range of symptoms associated with PN is great - from severe conditions like muscle wasting and breathing impairment to relatively minor annoyances like cold tingles. Very common experiences include changes in sensation. For example, a person with PN may feel a burning sensation when no heat is present, or may feel great pain from objects that had not previously caused pain, like socks or running water.

A great danger of PN is the loss of sensation. A PN sufferer may lose the ability to fully sense his foot hitting the floor, for example, and will therefore lose the ability to modulate his gait correctly, resulting in joint and tendon problems. In extreme cases, a PN sufferer may lose the ability to sense that bath water will scald him, or that he has stepped on a nail.

Causes of Neuropathy

The precise pathogenesis—or, cause—of many neuropathies is unknown, but approximately half of NP sufferers are diabetic. Probable causes other than diabetes range from genetic disorders to alcoholism.

A cause of neuropathy that is perhaps under-appreciated is Chemotherapy-Induced Neuropathy, or CIPN.

Causes of Neuropathy

CIPN affects around one-third to one-half of people undergoing chemotherapy, and the severity of the CIPN depends to a large extent on which drugs are used, how long they are used, and how much is prescribed. CIPN will worsen as chemotherapy treatment goes on. In some cases, symptoms of CIPN are relieved when the course of chemotherapy is finished, but many people report lasting symptoms, probably due to irreversible damage done to the nerves.

While CIPN has been shown to affect the motor and autonomic nervous systems, the majority of symptoms are impairments or exaggerations of sensation - burning, tingling, and numbness, some loss of balance and of the ability to hold things may occur.

Reference

National Institute of Neurological Disorders and Stroke. Peripheral Neuropathy. accessed July 28, 2015. http://www.ninds.nih.gov/disorders/peripheralneuropathy/detail_peripheralneuropathy.htm

American Cancer Society. Peripheral neuropathy caused by chemotherapy. accessed July 28, 2015. <http://www.cancer.org/acs/groups/cid/documents/webcontent/002908-pdf.pdf>