



Neuropathy, literally “nerve disease,” is a disorder that impairs the function of the nervous system by damaging one nerve or even more. There are several hundred types of neuropathy, and an umbrella term for a significant portion of the cases is peripheral neuropathy. Peripheral neuropathy (PN) refers to damage that occurs to nerves on the outer regions of the body - away from the spine and the brain. It is estimated to affect about 20 million Americans and often first makes itself known by causing pain, tingling, or numbness in the lower leg or foot.

Causes of peripheral neuropathy can be grouped into three major categories.

Diabetic Neuropathy

Diabetes is the number one known cause of PN, and about half of all diabetics develop some form of the condition. The reason for this is that the high blood sugar levels associated with diabetes can cause blood vessels to harden, effectively robbing nerves of the nutrients they need to thrive.

The process can begin painlessly and develop over several years. Diabetic neuropathy is particularly hard on the feet and can be quite dangerous, leading to ulcers that are very difficult to heal and lead to about 70,000 amputations per year.

Toxicity and CIPN

Certain toxins within the body can damage or fray nerves. Industrial toxins like lead and mercury can do it, as can heavy alcohol consumption.

Chemotherapy-induced peripheral neuropathy (CIPN) deserves special mention. This cause of neuropathy 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.

Compression of Entrapped Nerve

Nerves that travel through archways, tunnels, or any other kind of passage composed of bone, tendons, muscles, etc., are at risk of compression, either because the nerve has grown or, more probably, because the passageway has collapsed or been “squeezed.” The process is similar to a piece of matter getting stuck in a pipe, except because the piece of matter is a nerve, a signal of pain or distress will be sent to your brain.

Common foot and ankle manifestations of entrapped nerve are tarsal tunnel syndrome and Baxter’s nerve, and underlying causes of these conditions include bone spurs, cysts, and injury due to improper footwear or repetitive stress on the foot.

What to Watch For

The above three causes of neuropathy produce a similar range of possible symptoms, from a dull and present ache to sharp jolts of intense pain. Tingling, burning, and numbness are common. While the pain level may be tolerable at first, many neuropathies are progressive, meaning they worsen with time.

NueStep physicians are experts at diagnosing neuropathies and treating the pain associated with them. If you feel you are suffering from PN or are at risk of developing the condition, please call NueStep today.