

Peripheral neuropathy (PN) :

I have diagnosed and treated hundreds of patients with this disorder over more than twenty years.

It is damage to or disease affecting nerves, which may impair sensation, movement, gland or organ function, or other aspects of health, depending on the type of nerve affected.

Common causes include systemic diseases (such as diabetes), vitamin deficiency, medication (e.g., chemotherapy), injury or trauma, radiation therapy, excessive alcohol consumption, immune system disease, or viral infection. It can also be genetic (present from birth) or idiopathic (no known cause).

Neuropathy affecting just one nerve is called "mononeuropathy" and neuropathy involving nerves in roughly the same areas on both sides of the body is called "symmetrical polyneuropathy" or simply "polyneuropathy".

Peripheral neuropathy may be chronic (a long-term condition where symptoms begin subtly and progress slowly) or acute (sudden onset, rapid progress, and slow resolution). Acute neuropathies demand urgent diagnosis. Motor nerves (that control muscles), sensory nerves, or autonomic nerves (that control automatic functions such as heart rate, body temperature, and breathing) may be affected. More than one type of nerve may be affected at the same time. Peripheral neuropathies may be classified according to the type of nerve predominantly involved, or by the underlying cause.

Neuropathy may cause painful cramps, fasciculations (fine muscle twitching), muscle loss, bone degeneration, and changes in the skin, hair, and nails. Additionally, **motor neuropathy** may cause impaired balance and coordination or, most commonly, muscle weakness; **sensory neuropathy** may cause numbness to touch and vibration, reduced position sense causing poorer coordination and balance, reduced sensitivity to temperature change and pain, spontaneous tingling or burning pain, or skin allodynia (severe pain from normally nonpainful stimuli, such as light touch); and **autonomic neuropathy** may produce diverse symptoms, depending on the affected glands and organs, but common symptoms are poor bladder control, abnormal blood pressure or heart rate, and reduced ability to sweat normally.

Treatment :

The treatment of peripheral neuropathy varies based on the cause of the condition, and treating the underlying condition can aid in the management of neuropathy. When peripheral neuropathy results from diabetes mellitus or prediabetes, blood sugar management is key to treatment. In prediabetes in particular, strict blood sugar control can significantly alter the course of neuropathy. In peripheral neuropathy that stems from immune-mediated diseases, the underlying condition is treated with intravenous immunoglobulin or steroids. When peripheral neuropathy results from vitamin deficiencies or other disorders, those are treated as well.

Medications :

A range of medications that act on the central nervous system has been found to be useful in managing neuropathic pain. Commonly used treatments include tricyclic antidepressants (such as nortriptyline or amitriptyline), the serotonin-norepinephrine reuptake inhibitor (SNRI) medication duloxetine, and antiepileptic therapies such as gabapentin, pregabalin. Few studies have examined whether nonsteroidal anti-inflammatory drugs are effective in treating peripheral neuropathy.

Symptomatic relief for the pain of peripheral neuropathy may be obtained by application of topical capsaicin. Capsaicin is the factor that causes heat in chili peppers. The evidence suggesting that capsaicin applied to the skin reduces pain for peripheral neuropathy is of moderate to low quality and should be interpreted carefully before using this treatment option. Local anesthesia often is used to counteract the initial discomfort of the capsaicin. Compounded cream made by our local pharmacist can provide some relief for large number of my patients.