

All about Peripheral Neuropathy

Cheryl A. Faber, M.D.

What is a peripheral neuropathy?

The term peripheral neuropathy describes a problem with the functioning of the nerves outside of the spinal cord. Impaired function and symptoms depend on the type of nerves that are damaged. Some people may experience numbness, tingling, and pricking sensations, sensitivity to touch, or muscle weakness. Others may suffer more extreme symptoms, including burning pain (especially at night), muscle wasting, paralysis, or organ or gland dysfunction.

What causes a peripheral neuropathy?

There are many possible causes of peripheral neuropathy. In fact in many cases no specific cause can be identified as the causative agent. Anything which causes damage to nerves can contribute to the development of peripheral neuropathy. Compression of a nerve due to trauma or repetitive activities can be one cause. Many illnesses can result in peripheral neuropathy, such as diabetes, syphilis, AIDS, and kidney failure. Other causes include nutritional deficiencies, such as B-12 and folate deficiency, medications and exposure to toxins. Toxins known to cause peripheral neuropathy include alcohol, lead, arsenic, mercury and organophosphate pesticides. Some peripheral neuropathies are associated with diseases which are inherited (hereditary). Others are related to infectious processes (such as Guillain-Barré syndrome).

How is peripheral neuropathy diagnosed?

Suspicion of peripheral neuropathy is typically arrived at based upon the patient's symptoms and the findings on neurological exam. Diagnosis is confirmed with a nerve conduction study (NCS) and electromyography (EMG). Blood tests are useful to look for possible treatable causes of neuropathy, such as B-12 deficiency and diabetes.

Is there any treatment for peripheral neuropathy?

The treatment for peripheral neuropathy depends on its cause. Many peripheral neuropathies can be treated by addressing the underlying cause (such as vitamin deficiency). Others can be prevented from occurring. For example, controlling diabetes may prevent diabetic neuropathy. Still others can be corrected by surgery (for example carpal tunnel syndrome). Neuropathies that are associated with immune diseases can improve with treatment directed at the abnormal features of the immune system. To date, no medical treatments exist that can cure inherited peripheral neuropathy.

Even if the neuropathy can not be treated directly, there are many treatments available to alleviate the associated discomfort and pain. There are many topical and oral medications that can be of benefit. Others use non-medicinal treatments such as hot or cold packs.

What is the prognosis?

In acute neuropathies, such as Guillain-Barré syndrome, symptoms appear suddenly, progress rapidly, and resolve slowly as damaged nerves heal. In chronic forms, symptoms begin subtly and progress slowly. Some people may have periods of relief followed by relapse. Others may reach a plateau stage where symptoms stay the same for many months or years. Some individuals can develop disability due poor balance and muscle weakness, but disability is not the norm.

For More Information

Neuropathy Association
60 East 42nd Street
Suite 942
New York, NY 10165-0999
info@neuropathy.org
<http://www.neuropathy.org>
Tel: 212-692-0662
Fax: 212-692-0668

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