



A Patient's Guide to Understanding Peripheral Neuropathy

What is peripheral neuropathy?

Peripheral neuropathy (PN) is a condition in which the nerves that carry messages to and from the brain and spinal cord (the *peripheral nerves*) are damaged. The peripheral nerves connect the brain and spinal cord to the muscles, skin, and internal organs. PN is often found in the legs, feet, arms, and hands.

What causes PN?

Diabetes is one of the most common causes of PN. Other causes include injuries, HIV infection, alcoholism, and dietary deficiencies. Some types of cancer and certain cancer treatments can also cause nerve damage. PN is most common among older adults, although it can occur at any age. In some people, there is a genetic link; however, in many cases, no cause can be found.

What are the symptoms of PN?

The symptoms of PN can occur quickly or take years to develop. Some typical symptoms include pain, numbness, and problems with muscle control. (See "What Does PN Feel Like?" for more information.) Symptoms depend on which types of peripheral nerves are damaged: the *motor nerves* (which control your muscles and movement), the *autonomic nerves* (which control how internal organs like the stomach function), and/or the *sensory nerves* (those that receive information from the senses, such as nerves controlling the sense of touch). Any or all of the three types of peripheral nerves can be affected.

How is PN diagnosed?

Your healthcare provider will want to do a complete physical examination and get a detailed health history to see if any medical conditions that you may have are causing your nerve damage. Tests used to diagnose PN include blood tests, x-rays, imaging tests, tests of muscle strength, and tests of nerve and electrical activity in the muscles.

Can PN be treated?

Identifying and treating any medical condition that you may already have that might be causing nerve damage is the first step in treating PN. For example, if you have diabetes, strict control of blood sugar can reduce symptoms and help to avoid further nerve damage. The next step is to treat symptoms: talk to your healthcare provider about medications that can help to control pain and other symptoms. Non-drug treatments, such as biofeedback and acupuncture, can also help to control symptoms, and physical therapy and special shoes may help to improve walking and balance. Maintaining a healthy weight, not smoking, exercising, and eating a balanced diet can also help to prevent further nerve damage and improve your well-being. In some cases, surgery may be needed. Make sure to talk with your healthcare provider before taking any medication or starting an exercise or weight loss program.

Quality-of-Life Issues

PN can cause considerable disability and disruption to your everyday life, making it hard to work and spend time with friends and family. Talk to your healthcare provider about your concerns. Together, you can find the right treatments and best ways to manage your PN so that you can enjoy a better quality of life.

REFERENCES: American Diabetes Association. Available at: <http://diabetes.org/type-2-diabetes/foot-care.jsp>. • Irving GA. *Neurology*. 2005;64(suppl 3):S21-S27. • Medline Plus Medical Encyclopedia. Available at: www.nlm.nih.gov/medlineplus/ency/article/000593.htm. • National Institute of Neurological Disorders and Stroke. Available at: www.ninds.nih.gov/disorders/peripheralneuropathy/detail_peripheralneuropathy.htm. • National Diabetes Information Clearinghouse. Available at: <http://diabetes.niddk.nih.gov>. • The Neuropathy Association. Available at: www.neuropathy.org/site/PageServer?pagename>About_Symptoms. • The Neuropathy Association. Available at: www.neuropathy.org/site/PageServer?pagename>About_Facts. All websites accessed December 17, 2007.

What Does PN Feel Like?

PN in the feet and legs typically causes:

- ◆ Stumbling, difficulty walking
- ◆ Muscle cramps
- ◆ Tingling, shooting, or burning pain that is often worse at night
- ◆ Muscle twitching
- ◆ A feeling of heaviness in the legs
- ◆ Feeling like there are socks or slippers on your feet even though you're barefoot
- ◆ Reduced sensitivity to touch, and in some cases, the inability to feel pain

If You Have Diabetes: Give Your Feet TLC

Since having diabetes puts you at a higher risk for developing PN, it's important to take good care of your feet. Here are some tips:

- ◆ Check your feet each day for any problems (for example, swelling, cuts, redness, or blisters). If you're not able to see the bottoms of your feet, use a mirror or ask someone to check them for you.
- ◆ Wash your feet every day in warm water, and make sure to dry them carefully, especially between your toes.
- ◆ Keep your toenails trimmed and file any corns or calluses gently with an emery board or pumice stone.
- ◆ Always wear shoes and socks to prevent injuries.
- ◆ A yearly exam by a *podiatrist* is suggested for all people with diabetes, since PN can sometimes cause you to lose feeling in your feet and legs.

For more information:
Talk to your healthcare provider
or visit www.LegDisorders.org