

Options A-Plenty for Easing Painful Neuropathy

By Gary Scheiner, MS, CDE

Painful diabetic neuropathy. Just saying the words can send shivers up one's spine. Unfortunately, nearly half of those with long-standing diabetes will experience some form of neuropathy (nerve damage) in their lifetime, and almost one person in five will experience significant pain along with it.

What causes diabetic neuropathy? Nobody knows for sure. But we do know that high blood sugar plays a major role. When blood glucose levels are high for long periods of time, damage can take place to the coating on nerve fibers as well as the tiny blood vessels that feed the nerve cells. As a result, nerves that normally send signals to and from the brain may not work at all (causing numbness) or may not work correctly (causing pain).

Diabetes can affect many nerves throughout the body. Some nerves go from the brain to other vital organs, helping to maintain our heart rate, breathing, digestion and so on. These are called *autonomic* nerves. Other nerves account for our sense of touch, smell, taste, etc. These are called *peripheral sensory* nerves. Still other nerves control our muscles and help to coordinate our movements. These are called *motor* nerves.

Because the motor nerves and peripheral sensory nerves can be quite long, they are the ones most likely to be damaged by high blood glucose levels. Nerves that send signals to and from the feet and lower legs are often affected. Damage to these nerves can cause problems with walking and balance, plus frequent pain and a loss of protective sensation. This is why people

with diabetes are at such a high risk for foot injuries and infections.

Painful neuropathy can be frustrating because it often keeps people from enjoying their daily lives. It is also very challenging to treat. What works for one person may not help another. In fact, there may be as many different treatments for painful neuropathy as there are people who have it!

If you have ever been to a support group for people with neuropathy (and I've hosted enough of them to know), the conversation usually goes something like this:

"The only thing that helps me to deal with the pain is warm water therapy."

"Warm water makes mine worse! Anything that touches my skin makes it worse. Even the numbing patches."

"The numbing patches helped a little, but then they stopped. Now my doctor is seeing if an antidepressant will help."

"The antidepressants did nothing for me. But the anti-seizure medication seems to help."

"I've tried all the medications. Now I just get my husband to massage my legs and feet every night. It doesn't do that much for the pain, but at least we get to spend some quality time together."

There are many different options for treating nerve disease and the pain associated with it. Improving blood glucose control is considered to be among the most effective ways to lessen symptoms and prevent further nerve damage.

Dr. Jennifer Schneider, a Tucson, AZ physician certified in internal medicine and pain management, emphasizes this point with her patients. “If you have a diagnosis of diabetes and neuropathy, you should try to optimize your blood glucose control before trying anything else.”

A promising treatment for painful neuropathy is alpha-lipoic acid, also called thioctic acid. Alpha-lipoic acid is a strong antioxidant. In other words, it prevents the formation of harmful chemicals that may damage nerve fibers. Some studies show that alpha-lipoic acid may help reduce pain, burning, itching, tingling, and numbness in people who have nerve damage caused by diabetes.¹ Other studies suggest that alpha-lipoic acid may actually improve nerve function.² A long-term clinical study is currently underway in the U.S. and Europe to verify these findings.

The National Institutes of Health, a government agency, lists other treatments that may provide pain relief for neuropathy sufferers. These include:³

- Traditional pain relievers such as aspirin and ibuprofen.
- Capsaicin, a topical cream.
- Antidepressants. Duloxetine was the first medication approved by the U.S. Food and Drug Administration specifically for the treatment of peripheral diabetic neuropathy.
- Anticonvulsant medications. These decrease pain by lowering the level of neurotransmitters in the brain.

“Lyrica and Zimbalta (both anticonvulsant medications) can be very effective for treating pain,” says Dr. Schneider, whose book, Living with Chronic Pain: The Complete Health Guide to the Causes and

Treatment of Chronic Pain (Healthy Living Books, Hatherleigh Press, 2004) provides an up-to-date guide on all aspects of coping with pain.

Other pain treatments mentioned by the National Institutes of Health include:³

- Electrical stimulation, or TENS, which uses small amounts of electricity to block pain signals
- Acupuncture
- Hypnosis, relaxation training and biofeedback
- Wearing elastic stockings

There is no easy way to tell which pain treatments will work for you. According to Dr. Schneider, it often takes a combination of different treatments to achieve the desired relief. “It is important to add only one new treatment at a time, and keep careful track of what helps and what doesn’t. Taking a whole bunch of medications all at once makes it hard to see what works, and can cause serious side effects.”

For more help, ask your family doctor for a referral to a pain specialist. And check with your physician before trying any over-the-counter or alternative medicine to treat your pain.

1. Ziegler, D. Thioctic acid for patients with symptomatic diabetic polyneuropathy: a critical review. *Treatments in Endocrinology*. 2004;3(3):173-89.

2: Ziegler D, Nowak H, Kempler P, Vargha P, Low PA. Treatment of symptomatic diabetic polyneuropathy with the antioxidant alpha-lipoic acid: a meta-analysis. *Diabet Med*. 2004 Feb;21(2):114-21.

3. National Institutes of Health: National Diabetes Information Clearinghouse. Web page: Diabetic Neuropathies: the Nerve Damage of Diabetes. <http://diabetes.niddk.nih.gov/dm/pubs/neuropathies/index.htm>

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Gary Scheiner is a Certified Diabetes Educator with a Bachelor of Arts in Psychology from Washington University in St. Louis, a Master of Science in Exercise Physiology from Benedictine University, and diabetes training from the Joslin Diabetes Center. He operates a private practice near Philadelphia, specializing in intensive diabetes management for insulin users and providing consultations via phone and Internet. Gary has had type 1 diabetes since 1985. Questions about this article can be sent to Gary@integrateddiabetes.com.