CONTENTS

Introduction ............................................................................................................. 4
What Is Diabetic Nerve Pain? ............................................................................. 7
How Do I Know My Pain Is Related to Diabetes? ....................................... 9
Goals of Treatment ............................................................................................. 10
First Steps ............................................................................................................ 11
Medicines for Diabetic Nerve Pain .............................................................. 13
The Importance of Exercise ............................................................................. 14
Non-Medicine Pain Treatments ....................................................................... 15
Alternative and Complementary Approaches to Pain Relief .................. 15
Take Care of Your Feet! ................................................................................... 16
Finding Support .................................................................................................. 19
Conclusion ........................................................................................................... 20
Resources ............................................................................................................ 21
If you have diabetes, you probably focus on the day-to-day need to keep your blood sugar levels under control. You think about what to eat, and when to eat it. You may need to think about taking insulin or another medicine to help control blood sugar. These are just part of life for someone with diabetes. Yet it is also important to think beyond the day-to-day—to think long-term.

Diabetes can cause a number of problems that creep up slowly. The most common of these is nerve damage in the feet and hands. This kind of nerve damage can lead to different kinds of symptoms, such as numbness or lack of muscle control. But the most common and troublesome problem caused by nerve damage is a burning or tingling pain.

When it strikes, diabetic nerve pain, also known as diabetic peripheral neuropathy, can become the center of your life. The pain hurts, of course, but it can also disrupt sleep and prevent you from doing the things you enjoy. In addition, diabetic nerve pain can lead to a depressed mood.

The good news: your risk for diabetic nerve pain can be lowered by keeping your blood sugar levels close to the normal range. In addition, many types of medicines and some new devices can help relieve diabetic nerve pain.

This booklet will help. You’ll learn about diabetic nerve pain and ways it can be relieved. With persistence and the help of a health care team, you can manage diabetic nerve pain and go back to the things you enjoy in life.
WHAT IS DIABETIC NERVE PAIN?

Pain signals are carried by nerve fibers that run throughout your body. Nerve fibers are very sensitive to high levels of blood sugar. The damage from high sugar levels usually occurs slowly. Your risk for diabetic nerve pain is higher if you:

• Have poor blood sugar control
• Have had diabetes a long time
• Have high blood pressure
• Smoke
• Are tall

The ends of the longest nerve fibers are usually the first to be damaged by high blood sugar levels. That’s why pain is often felt first in the feet, then in the hands—parts of the body farthest from the brain and spinal cord. This type of pain is sometimes called the “stocking-glove” pattern.

DID YOU KNOW?

Neurologists are medical doctors who specialize in disorders of the brain and nerves. Neurologists can often help people with diabetic nerve pain and other neuropathies.
The pain caused by nerve damage can be more intense than other types of long-term pain. The pain can take many forms, including:

- Tingling
- Burning
- Prickling
- Cramping
- Extreme sensitivity to touch

Diabetic nerve pain is often worse at night. This can disrupt your sleep, leading to difficulty with thinking and memory, mood changes, and lower quality of life.

**HOW DO I KNOW MY PAIN IS RELATED TO DIABETES?**

Like any kind of pain, diabetic nerve pain can’t be measured directly with any test or machine. But you can describe your pain, and use various types of pain scales, to give your health care provider a sense of pain intensity and quality.

Although many different health problems can cause pain in the feet and hands, a health care provider can reliably diagnose your pain by evaluating for other causes. Your health care provider may do some simple tests of your reflexes, your ability to sense the vibrations of a tuning fork, or your ability to sense a very light touch.

If your case is not clear-cut, you may be referred to a neurologist for electronic tests of nerve function.

**DID YOU KNOW?**

Smoking increases your risk of having diabetic nerve pain. Quitting smoking is not easy, but it is well worth the effort and could lower your pain. Talk to your health care provider about help with quitting.
GOALS OF TREATMENT

If you are suffering from diabetic nerve pain, you want that pain to be reduced as much as possible. That’s a perfectly normal goal! Current treatments for nerve pain can usually reduce, but seldom eliminate, pain. But if your pain has been long-lasting, pain relief may not be the only goal of treatment.

Meaningful improvement often means regaining lost functioning. That could mean being able to do things you had given up because of the pain, or being able to move or sleep normally. Reducing pain is often just the first step in this process. Your health care provider may work with you to create a treatment plan tailored to the details of your own life and your own personal goals.

FIRST STEPS

The first step in managing diabetic nerve pain is to get your blood sugar levels under control to prevent further nerve damage. Keeping your blood sugar levels normal may reduce symptoms like diabetic nerve pain. It may also slow further nerve damage. Studies show that good control can lower the risk of nerve damage by 60%. Talk to a health care provider about ways to improve your blood sugar control.

Eating a healthy high-fiber diet, exercising, and using a device to measure your blood sugar levels can all make it easier to keep your blood sugar near normal levels.

DID YOU KNOW?

Sometimes pain symptoms get briefly worse when blood sugar levels are brought under control. But over time, good blood sugar control helps prevent nerve pain and delay the onset of other problems.
Many types of medicines may help relieve diabetic nerve pain. Finding the best medicine, or combination of medicines, may take some time. But working closely with your health care provider is your best hope of finding relief.

Pain medicines are often tried in a step-by-step manner. If one medicine doesn’t work well, another type is tried. With diabetic nerve pain, a combination of medicines often works better than a single medicine. The goal is to find medicines that work for you, without causing intolerable side effects.

It’s important to understand that 100% pain relief is usually not possible, no matter what treatment is tried. Yet studies show that people report real improvements in mood, activity, work, sleep, and enjoyment from life (the truly meaningful measures of successful pain management) even when pain is reduced by only 3 points on a 10-point pain scale.

Pain medicines come in different forms, including pills, patches, and creams. Some medicines work better than others to treat conditions related to nerve damage, such as muscle cramping or “restless legs” symptoms. Talk to your health care provider about which medicines might be best for you.
THE IMPORTANCE OF EXERCISE

Being physically active is one of the most important things you can do to reduce nerve pain and improve your overall health and mood. The American Diabetes Association recommends that people with diabetes exercise at least 2 1/2 hours a week. The exercise should be spread over at least three days per week.

You don’t have to go to a gym! Daily walking, house work, gardening, and other daily chores all count. Start slow and easy, then gradually build up. And if pain prevents you from being more active, talk to your doctor.

NON-MEDICINE PAIN TREATMENTS

A variety of devices and techniques may help relieve diabetic nerve pain. For example, electric nerve stimulators have been shown to work for some patients. Other methods, such as physical therapy or the use of cold-water treatments, may also be helpful. A device called a bed cradle can keep sheets and blankets from touching sensitive feet and legs.

ALTERNATIVE AND COMPLEMENTARY APPROACHES TO PAIN RELIEF

Roughly 40% of Americans have tried alternative or complementary approaches for relieving chronic conditions such as pain. Only a few of these techniques, however, have been scientifically studied for their ability to relieve nerve pain. Studies show that some over-the-counter treatments may help relieve nerve pain. Always tell your health care provider about any alternative or complementary therapies you may be using.
TAKE CARE OF YOUR FEET!

People with diabetes-related nerve damage must take special care of their feet. The nerves to the feet are the longest in the body. They are the ones most often damaged by diabetes. Pain is a common symptom, but numbness and lack of feeling can also occur. That means sores or injuries might not be noticed. This can lead to infections. At worst, problems related to diabetes can require amputation of the foot.

Here are things you should do to take care of your feet if you have diabetes:

- Clean your feet daily using warm (not hot) water and mild soap. Don’t soak your feet, just wash them and use a soft towel to dry them off.
- Check feet and toes every day for cuts, blisters, redness or other problems. Use a mirror set on the floor if that helps you see the bottom of your feet.
- Keep toenails trimmed to the shape of the toes and filed smooth.
- Wear shoes or slippers inside to protect your feet from injury.
- Wear shoes that fit well and let your toes move.
- Break in new shoes slowly and carefully.
Finding Support

Living with pain often causes a ripple effect that touches many parts of your life. You may feel a range of emotions such as fear, anger, hopelessness, confusion, and isolation. Those around you may have similar feelings. Individual counseling—and in some cases, counseling with your family—may help. Many people find relief and support from individual or group counseling specifically focused on pain and related worries. Trained professionals can act as “pain coaches” to teach useful skills and provide emotional support and guidance.

Chronic pain support groups may also help. Groups can be found in almost every city, and online support groups exist as well. People can share their feelings and swap tips that have helped them manage their pain. (You can find support groups through some of the organizations, including The Neuropathy Association, listed at the back of this booklet.) Be sure to find a support group with a strong positive and uplifting tone.
CONCLUSION

Now you’ve learned about diabetic nerve pain and the ways it can be managed. This kind of pain is very common, yet many people do not get the treatment they need. You’ve seen that keeping your blood sugar levels as close to normal as possible is the key to lowering the risk that you will feel diabetic nerve pain. Many types of medicines and other techniques are available as well. These may help relieve pain and allow you to regain activities you may have given up.

If you are not finding help through your regular medical care, then a neurologist may be able to help you improve your condition. Finding the best treatment may take some trial-and-error, but with patience and persistence, you can find relief from diabetic nerve pain!

RESOURCES

American Academy of Neurology
American Academy of Neurology Foundation
aan.com/patients

Neurology Now® Magazine
Free magazine for patients and caregivers, courtesy of the American Academy of Neurology.
neurologynow.com

Neurology Now Books™
Essential guides for patients and caregivers on various neurologic disorders.
aan.com/patients

The Neuropathy Association
neuropathy.org

American Diabetes Association
diabetes.org

Joslin Diabetes Center
joslin.org

National Diabetes Education Program
ndep.nih.gov

National Institute of Diabetes and Digestive and Kidney Diseases
diabetes.niddk.nih.gov/dm/pubs/neuropathies
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**American Academy of Neurology**
The American Academy of Neurology (AAN), established in 1948, is an international professional association of more than 22,500 neurologists and neuroscience professionals dedicated to promoting the highest quality patient-centered neurologic care. A neurologist is a doctor with specialized training in diagnosing, treating, and managing disorders of the brain and nervous system, such as Alzheimer’s disease, multiple sclerosis, epilepsy, stroke and Parkinson’s disease. For more information, visit [www.aan.com](http://www.aan.com).

**American Academy of Neurology Foundation**
The American Academy of Neurology Foundation (AAN Foundation) raises money to support vital research into the prevention, treatment, and cure of brain and nervous system disorders such as diabetic nerve pain. The AAN Foundation is committed to improving patient care, quality of life, and public understanding of the brain and other neurologic disorders. For more information or to make a donation to the American Academy of Neurology Foundation, visit [www.buyabrain.org](http://www.buyabrain.org).

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Credits

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Collaborator

American Academy of Neurology Foundation

Contributors to the Video

Thomas Chelimsky, MD, FAAN
Chair, American Academy of Neurology
Section on Pain
Director, Autonomic Disorders
Neurologic Institute
University Hospitals Case Medical Center
Case Western Reserve University
Cleveland, Ohio

John Markman, MD, FAAN
Chair-Elect, American Academy of Neurology
Section on Pain
Director of Translational Pain Research / Neuromedicine
Pain Management Center
Associate Professor of Neurosurgery
University of Rochester School of Medicine and Dentistry
Rochester, New York

Project Manager
Carol Brandenburg
Executive Producer
Conrad Productions

Guidebook Author
Stephen Braun
Medical Writer
Amherst, MA

Guidebook Design
Cinda Debbink
Design Partners
dgdesignpartners.com

Funder

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The most common complication of diabetes is nerve damage in the feet and hands. This can cause a burning, tingling, intense pain. Diabetic nerve pain not only hurts, it can also disrupt sleep, prevent you from doing the things you enjoy, and lead to depression.

The good news: you can lower your risk for diabetic nerve pain by keeping your blood sugar levels close to the normal range. Many types of medicines and some new devices can help relieve diabetic nerve pain.

This booklet and DVD will help you learn about diabetic nerve pain and ways it can be relieved. With persistence and the help of a health care team, you can manage diabetic nerve pain and raise your quality of life.