

Nerve Damage and Diabetes

Nerves send messages to and from your brain about pain, temperature, and touch.

They tell your muscles when and how to move and control body systems that digest food and pass urine. About half of all people with diabetes have some form of nerve damage. It is more common in those who have had the disease for a number of years.

Nerve damage from diabetes is called diabetic neuropathy. It can lead to many kinds of problems, but managing blood glucose helps prevent or delay these problems.



The two common types are:

Peripheral Neuropathy—This can cause tingling, pain, numbness, and weakness in your feet and hands.

Autonomic Neuropathy—This type can lead to:

- Digestive problems—feeling full, nausea, vomiting, diarrhea, or constipation
- Problems with how well your bladder works
- Problems having sex
- Dizziness or faintness
- Increased or decreased sweating
- Loss of the typical warning signs of a heart attack
- Loss of the warning signs of low blood glucose
- Changes in how your eyes react to light and dark

Other types of neuropathy:

Charcot Joint—Charcot Joint, also called neuropathic arthropathy, occurs when a joint breaks down because of a problem with the nerves. This type of neuropathy most often occurs in the foot.

Cranial Neuropathy—Cranial neuropathy affects the 12 pairs of nerves that are connected with the brain and affect and control sight, eye movement, hearing, and taste. Symptoms usually get better or go away within 2 or 3 months.

Compression Mononeuropathy—Compression mononeuropathy occurs when a single nerve is damaged. There are two types of damage:

- Nerves are squashed at places where they must pass through a tight tunnel or over a lump of bone.
- Blood vessel disease caused by diabetes restricts blood flow to a part of the nerve.

Examples are carpal tunnel syndrome and thoracic or lumbar radiculopathy.

Femoral Neuropathy—A pain may develop in the front of one thigh. Muscle weakness follows, and the affected muscles waste away.

Focal Neuropathy—Focal neuropathy affects a nerve or group of nerves causing sudden weakness or pain. It can lead to double vision, a paralysis on one side of the face called Bell's palsy, or a pain in the front of the thigh or other parts of the body.

Nerve damage can be hard to diagnose because its symptoms can be very mild or thought to be caused by other conditions.

If you're having problems that you think are from neuropathy, make a list of your symptoms and bring them to your doctor. If you have neuropathy, talk with your doctor about what treatment options might work for you.

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Keep your blood glucose levels in your target range.

Meal planning, physical activity, and medications, if needed, can help you reach your target range. The general targets recommended by the American Diabetes Association are listed below. Talk with your doctor about whether these targets are right for you.

Targets:

- When I wake up and before meals:
80 to 130 mg/dL
- 2 hours after starting a meal:
below 180 mg/dL

Take good care of your feet.

If you no longer can feel pain in your feet, you might not notice a foot injury.

Check feet every day

- Look for cuts, bruises, or swelling.
- See your doctor right away if there are any changes or if you hurt your feet.

Wash feet every day

- Use warm water and a mild soap. Avoid soaking since it can dry out the skin and lead to cracks.
- Dry your feet carefully, especially between the toes.

Keep skin soft and smooth

- Rub a thin coat of skin lotion (lotion, cream, or petroleum jelly) over the tops and bottoms of your feet, but not between your toes.

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Trim toenails

- If you can see and reach your toenails, trim (and file) your toenails straight across.
- Ask for help trimming your toenails if you have trouble reaching them or cannot see well enough to do it safely.

Other care tips

- If you have corns or calluses, ask your health care provider to trim them for you.
- Wear comfortable shoes and socks that fit well and protect your feet.
- Check the inside of your shoes each time you put them on to be sure the lining is smooth. Shake them out to remove any loose objects.
- If you have neuropathy, avoid going barefoot, especially in the yard or at the beach.

Get special shoes if needed. If you have foot problems, ask your health care team about special shoes.

Be careful when exercising.

Some physical activities are not safe for people with neuropathy. Talk with a diabetes clinical exercise expert who can guide you.

Get treatment right away.

If you have problems, get treatment right away. Early treatment can help prevent more problems later on. Keep an eye on your feet. Catching problems early can help prevent infection or amputation.