

# Diabetes and Nerve Damage

Nerve damage caused by high blood sugar levels in the body from diabetes is also called **diabetic neuropathy**. Most people with diabetes will develop some nerve damage, especially as they get older and have diabetes for many years.

Nerve problems are more common if you have diabetes and:

- Have problems controlling your blood sugar
- Are overweight
- Have high blood pressure
- Have high cholesterol

## Types of Nerve Damage

There are several types of nerve damage that can occur with diabetes, but the two more common types are:

- **Peripheral neuropathy** that often causes pain or loss of feeling in the toes, feet, legs, hands and arms. Most often the feet and legs are affected before the hands and arms.
- **Autonomic neuropathy** that causes changes in digestion of food, bowel and bladder function and sexual response. It can also affect the nerves that control the heart and blood vessels, lungs and eyes. This type is also linked to something called hypoglycemia unawareness, which happens when you no longer have warning signs of low blood sugar levels.

## Prevent Nerve Damage

Keep your blood sugar in a normal range. Work with your doctor and diabetes care team to learn how to manage your blood sugar levels.

As part of your care, your doctor should do a foot exam every year to check if you have any sign of loss of feeling in your toes or feet.

## Daily Foot Care

Check your feet every day for any open skin, sores or red spots. You may have a sore spot and not feel it because of the nerve damage. If you find skin problems, talk to your doctor.

- Clean your feet each day with warm water and mild soap. Do not soak your feet. Dry your feet well with a soft towel. Be sure to dry between your toes.
- Check your feet and toes for cuts, scrapes, blisters, red spots, sores or other problems. Be sure to check the top, bottom and sides of your feet. Check under and around each toe. You may need to use a mirror or get someone to help you check the bottom of your feet.
- Apply a moisturizing lotion to the skin of your feet, but avoid lotion between the toes.

- Use a pumice stone gently to smooth calluses or corns after a shower. Never cut or shave off calluses or corns.
- When toe nails get long, cut the nails straight across and file with an emery board to smooth any rough edges.
- Wear clean, dry socks that fit comfortably.
- Wear shoes or slippers to protect your feet. You should never go barefoot. Wear shoes that fit well and offer good support. Be sure to check inside your shoes before putting them on to make sure there are no objects in them and there are no tears, rough spots or sharp edges.

## Signs of Nerve Damage

Signs will vary based on the nerves that are affected. Some people have no signs at all. Some signs may get worse over time and some people report the signs are worse at night.

Signs may include:

- Numbness, tingling, loss of feeling or pain in the toes, feet, legs or fingers, hands and arms
- Muscle loss in the feet or hands
- Nausea and vomiting or problems with indigestion
- Diarrhea or constipation
- Problems with urine flow or control
- Dizziness or fainting when standing or sitting up that causes a drop in blood pressure called orthostatic hypotension
- Weakness
- Erectile dysfunction in men or vaginal dryness in women
- Heart rate changes

If you have any of these signs, visit your doctor for a physical exam.

## Your Care

### Testing

Your doctor will examine you and ask you questions about any signs you have. Tests may be ordered such as:

- Nerve conduction study or electromyography (EMG) that uses electrical signals to check nerves.
- Ultrasound that uses sound waves to check organs such as your bladder or stomach.

## Treatment of Your Nerve Damage

Treatment depends on the type of nerve damage you have and may include:

- Pain control with medicines, physical therapy or other treatments.
- Medicines to treat diarrhea or constipation.
- Eating small amounts of food every few hours, and limiting fats and fiber for indigestion problems.
- Physical therapy to help with coordination issues.
- If you have foot problems, talk to your doctor about seeing a foot doctor called a podiatrist. The nerves that go to the feet are often affected by diabetic neuropathy.
  - Loss of feeling may mean you do not feel a sore or blister.
  - Circulation problems may add to the risk of infection and slow healing in the feet.

## Managing Your Diabetes

You also need to manage your diabetes as ordered by your doctor to keep your blood sugar levels in a normal range and prevent further nerve damage:

- Check your blood sugar often.
- Take your diabetes medicines as directed.
- Follow your meal plan.
- Exercise each day.
- Do daily foot care to protect your feet.

**Talk to your doctor or nurse if you have any questions or concerns.**