



# Five tips for avoiding diabetes complications



## 1. Keep blood sugar levels as close to normal as safely possible.

High blood sugar levels harm health in many ways — and the higher the blood glucose levels over time, the greater the risk of developing complications. Long-term complications from diabetes fall into three categories:

- **Microvascular disease** affects the small blood vessels of the body (such as those in the eyes and kidneys).
- **Nerve damage (neuropathy)** often affects the feet. It may also impair the automatic function of various organ systems, including the intestines, bladder, and heart, resulting in altered digestion, incontinence, arrhythmias, and sexual dysfunction.
- **Macrovascular disease** affects the body's larger blood vessels, leading to heart disease, stroke, and blockages in leg arteries.

Keeping your blood glucose levels as close to normal as possible helps prevent microvascular disease and nerve damage. If your HbA1c level is 7% or higher, your therapy should be adjusted.



## 2. Keep blood pressure under a maximum of 140/90 mm Hg.

Ideally, blood pressure should be under 130/80. Keeping blood pressure tightly controlled can reduce the rate of progression of kidney damage. Losing weight and reducing salt intake can help keep blood pressure at healthy levels. If medications are needed, most doctors prescribe ACE inhibitors or angiotensin-receptor blockers to control high blood pressure in people with diabetes. These drugs retard the progression of kidney disease and may be used to treat microalbuminuria even when blood pressure is normal. Two or more types of blood pressure medications are often required to keep blood pressure within an acceptable range.

## 3. Aim to keep your cholesterol at healthy levels.

LDL (unhealthy) cholesterol levels should be under 100 mg/dL. HDL (healthy) cholesterol should be over 40 mg/dL if you are a man or over 50 mg/dL if you are a woman. Triglyceride levels should be below 150 mg/dL.

Heart disease can be prevented and treated. That's why early detection of high cholesterol, high triglycerides, and hypertension is so vital. A fasting blood test can measure levels of LDL, HDL, and total cholesterol, as well as triglyceride levels. Because hypertension usually has no symptoms, it's important to have your blood pressure checked regularly.

If you have any chest pain or pressure, trouble breathing, or lightheadedness, you should be examined for heart disease. Don't delay seeking treatment. Because nerve damage can blunt or change the usual symptoms of angina, people with diabetes must also watch for jaw or arm discomfort during or after physical activity, dizziness, or shortness of breath after minimal exercise.

#### 4. Practice good foot care.

Peripheral and autonomic neuropathy are common diabetes complications. Diminished blood flow from the blockage of the arteries feeding the foot can impair pain sensation and impede the body's infection fighters. People with these conditions must carefully check their feet and toes every day for a possible injury. Here are some basic steps to help take care of your feet:

- **Know your feet.** Take a good look every day to see if you've cut or bruised your feet without realizing it. Pay attention to any growths or discoloration. If your foot swells or changes in color, for example, it could be a sign of a fractured bone or poor circulation.
- **Practice good foot hygiene.** Wash your feet every day. Dry them thoroughly, especially between the toes. Moisturize any dry skin (but not between your toes), or dust with foot powder to keep your feet dry. Cut the nails straight across to avoid ingrown toenails, which can lead to infection. However, be careful when wielding the scissors: if you've lost sensation in your feet, or if your nails have hardened, consider having your nails trimmed professionally.
- **Protect your feet.** Wear shoes with ample cushioning and socks that protect against friction. Make sure your shoes fit by having your foot measured every time you buy a new pair. Avoid high heels or shoes with pointy toes. If you must wear such shoes for dressy occasions, try to limit the amount of time they are on your feet.
- **Lose weight if you're overweight.** Every extra pound increases the pressure on your feet.
- **Exercise regularly.** Exercise, such as walking, improves circulation.
- **Don't smoke and drink in moderation.** Smoking impairs circulation. Avoid excessive consumption of alcohol, which can impair nerves already at risk because of diabetes. Government health agencies and the American Medical Association define moderate drinking as no more than two standard drinks per day for men under age 65 and one drink per day for women. (A drink is defined as 12 ounces of beer, 5 ounces of wine, or 1.5 ounces of hard liquor.)
- **Learn when to seek help.** If you have diabetes, you're also more prone to complications. If you develop any of the foot problems, it's vital that you see a doctor. Don't try to treat yourself at home.

- **Apply for Medicare-funded shoes.** Medicare covers the cost of therapeutic shoes and inserts for people with diabetes, in an effort to reduce foot and leg amputations. Medicare covers 80% of the approved cost for durable equipment (which can include shoes as well as insulin pumps and other therapeutic devices), after you have met the annual deductible. Ask your doctor about the Medicare program, because the shoes must be ordered through a physician or podiatrist. Or call the Medicare Helpline at 800-633-4227 (toll-free) for more information.

## **5. Schedule regular visits with your doctor to assess your overall health.**

Your regular medical visits should consist of checking for the presence of any diabetes complications as well as ways to reduce your risk of complications. According to the National Institute of Diabetes and Digestive and Kidney Diseases, you should see your health care team at least twice a year to find and treat and problems early. Here are some important appointments you should make:

- Primary care/endocrinologist — every 3 to 6 months for an exam that should include checking your blood pressure, weight, and feet
- Dentist — every 6 months or more frequently, if necessary
- Optometrist/Ophthalmologist — dilated eye exam annually or bi-annually if the exam shows no problems developing
- Podiatrist — annually for a comprehensive exam that includes checking for calluses, infections, sores, and loss of feeling