



The Patient Education *Forum*

Living with Diabetes

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An estimated 17 million Americans have diabetes. About half of these people are over the age of 60. Diabetes is increasing among persons over the age of 65 years, particularly among ethnic minorities. Unfortunately, about 11% of people between 60 and 74 years of age who have diabetes *do not know it...*

Q. What is diabetes?

A. Diabetes is diagnosed when the body's blood glucose is too high. Glucose is a form of sugar that is converted from foods eaten, and normally, a hormone called insulin controls the body's glucose levels. Insulin is produced in the pancreas and helps the body's cells use glucose for nourishment and energy. Diabetes develops when the body fails to make enough insulin or does not respond to insulin in the regular way. When this happens, blood glucose levels become too high.

Symptoms of diabetes and high glucose levels in the elderly include weight loss, excessive hunger and thirst, lack of energy, frequent urination, feeling tired, memory loss and vision problems. Diabetes can be controlled and some of its serious complications can be prevented.

Q. What are Type 1 and Type 2 diabetes?

A. Type 1 diabetes—formerly known as juvenile diabetes—usually affects children and young adults (less than 30 years of age). In this case, cells in the pancreas no longer produce insulin, so people must take insulin throughout their lives. Maintaining a healthy weight and eating a healthy diet are important.

Type 2 diabetes is more common, and usually occurs in people over 40 years of age. Type 2 diabetes makes up about 90% of the cases of diabetes in the United States. Though the pancreas still produces insulin, not enough is produced, or the body fails to use it properly, causing diabetes to develop. Some patients can manage this type of diabetes in the early stages with lifestyle changes, such as exercise and diet. Others may need to take an oral diabetes medication and some must take insulin.

Q. Why did I develop diabetes?

A. Having a family history of diabetes is one factor linked to an increased risk for the disease. Other risks for Type 2 diabetes are being overweight and not getting enough exercise. Some ethnic groups, such as African Americans, Latinos, and American Indians, are at a higher risk for Type 2 diabetes and its complications.



The AGS Foundation for Health in Aging

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Q Is diabetes a serious disease?

A. If not controlled, diabetes can damage many parts of the body and even cause death. Older persons with diabetes have higher rates of premature death, disability, and other illnesses such as kidney disease, heart disease, and stroke. Older diabetics also may experience problems with depression, memory loss, urinary incontinence, falls, poor vision, and persistent pain.

Q What are some of the complications of diabetes?

A. Diabetes can lead to several serious complications. Careful control of blood glucose and other important lifestyle changes will either prevent or delay the following complications:

- *Circulatory and Cardiovascular Disease.* People with diabetes have a higher risk of stroke, heart attack, and higher cholesterol levels. Moderate exercise, a low-fat, low-calorie diet, weight loss, not smoking and control of blood glucose and blood pressure are important in reducing your chances of having a stroke, and heart and blood vessel problems. Your healthcare provider should check your blood pressure and cholesterol levels and recommend treatment when these are not controlled by lifestyle changes alone.
- *Diabetic Neuropathy.* Neuropathy means "nerve disease." Diabetic neuropathy occurs in the peripheral nerves (such as in the arms and legs). These peripheral nerves include: sensory nerves (those that send messages to the brain about pain, temperature, and movement); motor nerves (those that receive signals from the brain to produce movement); and, autonomic nerves (involuntary nerves that control such things as blood and pressure changes). When nerve cells are damaged, neuropathy occurs. Depending on the type of nerve involved, diabetic neuropathy can cause pain, or feelings of tingling, pinpricks, and burning. It can also cause a loss of feeling or muscle weakness. Autonomic neuropathy can cause problems with digestion, urinary retention (inability to empty the bladder), impotence (sexual problems), and diarrhea. Medications can help decrease neuropathic pain.
- *Vision Loss.* Persons with diabetes are at increased risk for vision problems or blindness. Diabetic retinopathy is damage to the retina or back of the eye that results from problems with the capillaries (small blood vessels) in the eye. This damage takes place over time. Newer treatments, such as laser and microsurgery, can help prevent vision loss if problems are found early. Dilated eye exams at least every two years are important in identifying changes before much vision loss occurs.

Other eye problems such as glaucoma and cataracts are also more common in persons with diabetes. Your healthcare provider can tell you more about how these problems can be found and treated.

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- *Diabetic Nephropathy* (kidney disease). Over time, diabetes can damage the tiny blood vessels within the kidney that filter blood, resulting in the kidney not working properly. Protein from the blood can leak into the urine, and eventually elimination of waste through the urine can be decreased. In its early stages, nephropathy does not cause symptoms and can only be detected through lab tests. If nephropathy becomes severe, symptoms will be noticed and dialysis might be necessary. In the United States, diabetes is the leading cause of end-stage kidney failure. Blood pressure control is important in preventing this complication. Certain medications can also be used to delay the progression of the kidney disease.
- *Foot Problems*. Lower limb infections, primarily in the foot, are a leading cause of hospitalization in persons with diabetes. Because of decreased circulation to the legs and feet and diabetic neuropathy, foot problems are common among diabetics. If sensation (feeling) in the legs and feet is reduced, a person with diabetes might be unable to feel pressure, rubbing or other injuries to his or her feet. This can mean that blisters and other skin changes are likely to develop. For a diabetic, even a small blister or corn can become infected and have problems healing. It is important to avoid injury by wearing shoes, socks and hose that fit correctly and have no bumps or ridges. Patients with diabetes must pay close attention to their feet and inspect them daily. They must take great care cutting their toenails—a podiatrist or other health care provider can provide foot care that can avoid complications.

Q. What can I do to control my diabetes?

A. Certain changes in your lifestyle will likely be needed to control your diabetes and to decrease your risk for complications. These include: weight loss for obese patients; eating a low-calorie, low-fat diet; exercising regularly; not smoking; and, monitoring blood glucose and blood pressure levels.

Exercise is very important for persons with diabetes. Even moderate exercise, such as walking, can help lower your blood sugar. Exercise also decreases the risk of heart disease and helps mild depression. Because of differences in the physical condition of older diabetics, you should talk to your health care provider or diabetes educator to plan an exercise program that is right for you.

Control of blood glucose levels is important in preventing or delaying complications. Blood glucose levels can be checked to insure that control is achieved. People with Type 1 diabetes must check their blood glucose frequently by testing a drop of blood. Some people with Type 2 diabetes might need to test their blood glucose, but others can rely on regular physician visits for monitoring. Your health care provider will provide instructions for testing your blood glucose level. New devices are available that make blood glucose monitoring easy and nearly pain free.

In addition to the blood glucose level, another type of blood test that can be used is the hemoglobin A1C, or glycosylated hemoglobin. This test provides a measure of a person's average blood glucose levels over the prior two to three months. ⇨



Q. What about smoking?

A. Diabetics who smoke are three times more likely to die of heart disease than are diabetics who do not smoke. In addition to increasing one's risk for heart attack, high blood pressure, and stroke, smoking increases the chance of nerve damage and kidney disease. Your health care provider or diabetic educator can identify a strategy to help you quit smoking.

Q. How can I learn about oral medications, insulin, and blood glucose monitoring?

A. If you need medication to control your diabetes, your health care provider, diabetes specialist, or diabetes educator will discuss the different types of oral diabetes medications and/or injectable insulin with you. There are several "classes" of oral diabetes medications and several types of injectable insulin. After considering the characteristics of your diabetes and your health in general, your health care provider will recommend a medication regimen specifically for you. He or she will also tell you when and how you should take your medication(s), and how to monitor your blood glucose.

Your health care provider might refer you to a diabetes educator, a specialty physician, or to a diabetes management program. Annual diabetes self-management training is covered under Medicare Part B.

Q. Where can I get more information about diabetes?

A. Diabetes is a very common and serious disease. It is important for patients to realize that they need to manage it daily in order to delay or prevent complications. There are many resources in your community that can help you learn more about diabetes. The more you know, the more you will be in control of your disease.

The AGS Foundation for Health in Aging has multiple publications to help you learn about diabetes and its complications. Other organizations that can provide you with additional information are:

American Diabetes Association
 ATTN: National Call Center
 1701 North Beauregard Street
 Alexandria, VA 22311
 1-800-DIABETES (1-800-342-2383)
www.diabetes.org

The Centers for Disease Control and Prevention, Publications and Products: *The Prevention and Treatment of Complications of Diabetes Mellitus: A Guide for Primary Care Practitioners*.
www.cdc.gov/diabetes/pubs/complications/

Complications of Diabetes
Columbia University College of Physicians & Surgeons Complete Home Medical Guide.
[HTTP://cpmcnet.columbia.edu/texts/guide/hmg21_0006.html](http://cpmcnet.columbia.edu/texts/guide/hmg21_0006.html)

