

Healthy Living

Patient Information from the American Chiropractic Association

Diabetes Mellitus

Diabetes is a severe health condition that can cause life-altering and even life-threatening problems, such as slow wound healing and nerve disorders. It can also complicate problems in muscles, bones, and joints. Diabetes results from an excessive buildup of glucose in your bloodstream. Glucose, or blood sugar, which the body gets from food and also manufactures in the liver and muscles, is a substance the body uses for energy and nutrition. To control glucose levels in your blood, the body uses insulin, a substance produced by the pancreas. An imbalance in this system can cause pre-diabetes or diabetes.

In most people, normal blood glucose levels range from 80 to 120. The levels vary depending on the time of day and how long it has been since you've eaten. Levels can go as high as 180 within 2 hours after a meal. Pre-diabetes is excess blood glucose that is not severe enough to be called diabetes. The mild-to-moderate abnormal blood glucose levels of pre-diabetes can make you more likely to develop type 2 diabetes, stroke, and heart disease.

Types of Diabetes

There are two main types of the disease. Type 1 diabetes, formerly called juvenile or insulin-dependent diabetes, usually begins in childhood to early adulthood. It results from destruction of insulin-producing cells in the pancreas. When the body destroys these cells, insulin levels in the blood become too low to properly manage blood sugar.

Type 2 diabetes is also called adult-onset diabetes or non-insulin-dependent diabetes. This condition results from insulin resistance—the inability of body tissues to properly utilize insulin produced by the pancreas. The pancreas compensates by producing more insulin, but eventually it cannot keep up with the demand,



especially after meals. Obesity, poor diet, and lack of exercise predispose you to developing type 2 diabetes.

A less common form of the disease is called gestational diabetes. It occurs, secondary to hormonal changes, in pregnant women during the late stages of pregnancy and usually resolves after the birth of the baby. It is important to remember, however, that gestational diabetes makes a woman more likely to develop type 2 diabetes later in life.

Managing Glucose Levels

With diabetes, uncontrolled glucose levels can lead to serious problems with vision, kidney function, nerve dysfunction, and blood vessels, including heart attack and stroke. In fact, people with diabetes have approximately twice the risk of stroke and heart attack faced by the general public.

In a nutshell, to manage glucose levels, you should exercise regularly, eat a healthful balanced diet, and maintain a healthy body weight.

Physical activity helps control blood glucose levels in both healthy adults and in diabetics. Aerobic exercise, such as walking, swimming, dancing, and riding a bicycle, appears to be most beneficial. What that does is raise your heart rate, helping to not only control blood glucose but also prevent heart attack and stroke. You can get some exercise by house cleaning or doing yard work, such as gardening. Physical activity helps diabetic patients maintain a healthy body weight, helps insulin lower the blood glucose levels, and gives patients more energy. Before you start an exercise program, consult with your doctor to make sure that the exercise program is tailored to fit your specific needs.

It's also important to eat foods that are generally low in fat—and when fats are eaten, aim for “good” ones, such as those found in olive oil, fish, and other products. People with diabetes don't need to eat special foods but should avoid foods that contain large amounts of saturated and/or trans fats. They should also avoid eating too many processed sugars, but instead choose complex carbohydrates such as those found in fruits and vegetables. The benefits of this type of healthy diet can extend beyond blood sugar control and diabetes prevention to help prevent heart attack and stroke.

Maintaining a healthy body weight usually comes naturally from good eating habits and regular exercise. Some even suggest that these two steps alone influence the prevalence of diabetes and the maintenance of healthy blood sugar levels. ■

For more information, visit the American Diabetes Association (www.diabetes.org), the Juvenile Diabetes Research Foundation (www.jdrf.org), and the American Dietetic Association (www.eatright.org).

Signs and Symptoms

The most common signs and symptoms of diabetes are:

- excess thirst
- excess urination
- excess hunger
- fatigue
- losing weight without trying
- sores that heal slowly
- dry, itchy skin
- loss of feeling or tingling in your hands and/or feet
- blurry eyesight

If you experience any of these symptoms, you should seek treatment as soon as possible. Early diagnosis can play an important role in managing the disease and preventing multiple problems.

Not all of these signs and symptoms need to be present in patients with diabetes. In fact, it is not uncommon to have diabetes with no apparent signs or symptoms. For some, the 1st sign of diabetes is a stroke or heart attack, so prevention is key.

American Chiropractic Association

For more information on prevention and wellness, or to find a doctor of chiropractic near you, go to the Patient Information section on ACA's Web site at www.acatoday.org or call 703-276-8800.

*Lawrence H. Wyatt, DC, DACBR, FICC, Professor, Division Of Clinical Sciences, Texas Chiropractic College, **Writer***

*Nataliya Schetchikova, PhD, **Editor***