

Diabetes and Stroke

What is Diabetes?

Diabetes is a disease that affects a person's ability to move blood sugar (or glucose) out of the blood and into the cells – where it is used as the body's primary source of fuel.

There are two types of diabetes: insulin dependent (also called Type I) and non-insulin dependent (Type II). Type I diabetes usually begins in childhood and is portrayed by the body's failure to produce enough insulin. Insulin is the hormone the body uses to convert sugar, starches and other food into energy.

Type II is more common. It is estimated that more than 90 percent of all Americans diagnosed with diabetes have Type II diabetes. With this type, the body is able to produce insulin, but tissues develop a resistance to it and blood sugar levels rise above normal. It generally develops during adulthood and may escape notice for some time. That's because many symptoms of the disease seem harmless.

Stroke and Diabetes

People with diabetes are **twice as likely to have a stroke** as someone who does not have diabetes. Many people with diabetes have health problems that increase their risk for stroke, most likely because the problems that result from diabetes are also stroke risk factors.

At the top of this list is high blood pressure, also known as hypertension. As many as two out of three adults with diabetes have high blood pressure. High blood pressure that is not controlled is the leading cause of stroke.

Heart attack and atrial fibrillation (an irregular heartbeat) are also common among people with diabetes. Both of these types of heart disease increase the risk for stroke.

Many people with diabetes also have high levels of cholesterol, which expands their risk for stroke. Build-up of LDL cholesterol, sometimes called the "bad" cholesterol, can block blood

vessels and reduce blood flow to the brain. Any time you decrease blood flow to the brain, you increase your risk for stroke.

Brain damage may be more severe and widespread if blood sugar is high when a stroke happens. Careful control of blood sugar, either with insulin or blood sugar-lowering pills, can help.

How do I know if I have diabetes?

Being tested for diabetes is quick and easy. Your doctor's office will collect a blood sample and then check your blood sugar levels by using a Fasting Plasma Glucose (FPG) test. High levels may signal diabetes.

What is the treatment?

Both types of diabetes can be controlled, reducing the risk of long-term health problems such as stroke. Type I is treated by closely monitoring blood sugar and taking daily shots of insulin. Type II, which is worsened by obesity, can often be controlled through weight loss, exercise and healthy eating habits. Daily insulin injections are not always needed.

The good news is it's never too late to take control of your health. By preventing or treating diabetes, you can reduce your risk for stroke.

What else can I do to prevent diabetes?

- **Foot Care** - Inspect your feet daily for signs of trouble. If you have a foot sore or callus, get it checked by your doctor or podiatrist.
- **Eye Care** - See your eye doctor at least once a year. Diabetes can lead to eye disease, but there are good treatments if you catch the problems early.
- **Dental Care** - See your dentist every six months. Excess blood sugar in your mouth can cause bacteria, which can lead to infection.
- **Be More Active** – Exercise can lower your blood sugar, blood pressure and cholesterol; help insulin work well; improve your blood circulation; and keep your joints flexible.
- **Eat a Healthy Diet** - Eat smaller portions, more fruits and vegetables, and foods that are high in fiber. Also, watch your salt, fat and sugar intake.

For more information about ways to reduce your risk of stroke, visit www.stroke.org.

Note: This fact sheet is compiled from general, publicly available information and should not be considered recommended treatment for any particular individual. You should consult your provider about any personal medical concerns.

All publications are reviewed by National Stroke Association's Publications Committee.