

## ► STROKE AND DIABETES ◀

People with diabetes are nearly three times as likely to have a stroke than someone who does not have the disease. This increased risk may be due to some of the same complications that result from diabetes are also associated with stroke.

### What is a stroke?

Stroke is a medical emergency, just like a heart attack. That's why experts in the field now refer to it as a "brain attack." Strokes result from a sudden decrease in the flow of blood to parts of the brain. When blood can't reach the brain, its cells are deprived of oxygen and die, so functions normally controlled by the damaged brain areas are impaired. Among the possible effects are temporary or permanent paralysis of various parts of the body or impaired speech or vision.

### What is diabetes?

Diabetes is a disease which 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** (Type I) – found in childhood and is characterized by the body's inability to produce enough insulin, which is a hormone that permits the body to metabolize blood sugar (glucose).

- **Non-Insulin dependent** (Type II) – more common type of diabetes that makes up over 90 percent of all diabetes cases. It usually develops in adulthood and may go unnoticed for some time. The body is able to produce insulin, but tissues develop a resistance to its actions and blood sugar levels rise above normal.

### Why is there a link between stroke and diabetes?

There are a number of risk factors that increase the chance of vascular complications in individuals with diabetes. At the top of this list is high blood pressure.

Hypertension is twice as likely among patients with diabetes. This contributes to a higher stroke risk, and can lead to a stroke from a blood clot or hemorrhage.

Heart disease is another common problem that can result in higher stroke risk among patients with diabetes. Myocardial infarction (heart attack) and atrial fibrillation (irregular beating pattern) are common and increase stroke risk.

Brain damage may be more severe and extensive if blood sugar is high when a stroke happens. Careful regulation of blood sugar, either with insulin or oral blood sugar-lowering drugs, can reduce vascular complications.

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## **What is the treatment for diabetes?**

Both types of diabetes can be controlled, reducing the risk of long-term health complications such as stroke. Type I is treated closely by monitoring blood sugar and taking daily insulin injections. Type II, which is worsened by obesity, can frequently be controlled through weight loss, dietary changes and exercise. Daily insulin injections are not usually necessary and are reserved as a last resort.

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