

Confusion over diabetes types adds to patients' woes

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Kelly Kunik

Causes, treatment differ between type 1 and type 2 disease.

(HealthDay)—Given that about one in 12 Americans has diabetes, chances are good you know someone with some form of the disease. But you may be less informed about the different types of diabetes and their causes and treatments.

Because [type 2 diabetes](#)—by far the most common form—is linked to being overweight, many [people](#) mistakenly assume all diabetics have brought the condition on themselves or can cure it by changing their diet.

"I really take offense when people tell me that if I just stopped eating everything white—like sugar, bread and potatoes—I'd be off the 'demon' [insulin](#) in a month. That's not how it works," said Kelly Kunik, a [diabetes](#)

blogger from the Philadelphia area who has had type 1 diabetes for nearly 35 years.

Type 1 diabetes, formerly called juvenile diabetes or insulin-dependent diabetes, affects only 5 percent to 10 percent of people with diabetes.

The one similarity that types 1 and 2 diabetes share is the inability to properly process sugar (glucose) in the blood. [Blood sugar](#) comes from carbohydrates in food. Grains, [fruits and vegetables](#) all have carbohydrates, as do sweet foods such as cakes and cookies. But sweets and [refined grains](#), such as white bread, tend to raise the blood sugar more than [whole grains](#) and most vegetables.

The reason the body doesn't process carbohydrates properly differs depending on the type of diabetes. In type 1, the body has a complete or nearly complete lack of insulin, the hormone needed to help glucose get into cells in the body and brain to provide energy.

"Type 1 is thought to be caused by an [autoimmune attack](#) on the cells that produce insulin, leaving people with type 1 diabetes with little or no insulin," said Dr. Sue Kirkman, senior vice president of medical affairs and community information for the [American Diabetes Association](#).

"But what triggers that attack to occur in the first place is still unknown," she said. "Genetics and an environmental trigger, such as a virus, may play a role, but being overweight and exercising too little are not related to the development of type 1 diabetes."

Type 1 diabetes can only be treated with [insulin therapy](#). Insulin must be injected through shots or a pump that delivers it through a tiny tube placed under the skin. The insulin pump's user controls the pump and must change the tube every few days.

There is no known way to prevent type 1 diabetes. Changing your diet won't help prevent it or eliminate the need for insulin. People with type 1 generally can eat any food they want, because they give themselves a dose of insulin based on the carbohydrates in the meal they're eating.

Experts do recommend that people with type 1 diabetes consume the same sorts of healthy foods they recommend to everyone to prevent heart disease, cancer and other life-threatening conditions.

It surprises some people to see people with type 1 guzzling soda or eating candy. Although these high-sugar foods aren't strictly off limits for people with type 1, they often are reserved to treat low blood-sugar levels—a not uncommon side effect of insulin therapy. It's dangerous when blood sugar drops too much, and people with [type 1 diabetes](#) need to consume foods or drinks that will rapidly raise their blood-sugar levels.

With type 2 diabetes, on the other hand, the body makes insulin but doesn't use it effectively, Kirkman said. Although type 2 is associated with obesity and a sedentary lifestyle, there are other factors at play.

"Not everyone who is overweight will develop type 2 diabetes, and not everyone who has type 2 diabetes is overweight," Kirkman said. "Type 2 diabetes has a strong genetic component. If others in your immediate family have type 2 diabetes, your risk of developing the disease is higher."

Between 90 percent and 95 percent of people with diabetes have type 2, according to the National Diabetes Education Program. This type used to be called adult-onset diabetes, but in the wake of the U.S. obesity epidemic, children are increasingly developing type 2.

According to the U.S. Centers for Disease Control and Prevention, one

in three Americans will have type 2 diabetes by the year 2050 if current trends continue.

It is sometimes possible to prevent or delay the onset of type 2 diabetes with exercise and diet, which help the body use insulin more effectively.

"People who begin an exercise program of 30 minutes a day and who lose 7 percent of their body weight decrease their risk of type 2 diabetes by more than 50 percent," said Elaine Sullivan, associate director of clinical education programs at the Joslin Diabetes Center in Boston.

Most people with type 2 diabetes try to consume a consistent amount of carbohydrates with each meal to help keep their blood-sugar levels stable. The amount of carbohydrates is individualized based on your weight and activity level.

Oral medications are available to help control blood-sugar levels, and many people with type 2 diabetes eventually need insulin therapy.

Both forms of diabetes have potentially life-threatening consequences. Uncontrolled, diabetes can damage major organs and cause heart disease, stroke and even lead to amputation of a limb.

More information: Learn more about type 1 and type 2 diabetes from the [U.S. National Diabetes Education Program](#).

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