Diabetes mellitus [1]

Dear Alice,

What is diabetes mellitus?

? Sugared

Answer

Dear Sugared,

You bring up an important question considering the prevalence of diabetes is growing rapidly across world. Diabetes is a disease marked by high blood glucose (sugar) levels as a result of the hormone insulin not functioning properly in the body. Insulin, normally secreted by the body's pancreas, stimulates cells to absorb glucose in bloodstream. When the production or functioning of insulin is disrupted, as in people who have diabetes, the result is low absorption of glucose by individual cells and the liver. As a result, the glucose builds up in the blood, the body's cells don't get the energy they need to function, and the liver is unable to store glucose as glycogen for future energy.

There are three different types of diabetes:

Type 1 diabetes (also called insulin-dependent diabetes mellitus or juvenile-onset diabetes) results when the body's immune system destroys pancreatic beta cells and therefore prevents the pancreas from producing insulin. Type 1 patients, accounting for 5 percent of all people with diabetes, need to receive daily injections of insulin to stay alive. Although diabetes can develop at any age, type 1 most commonly affects people in childhood or young adulthood in the United States.

Type 2 diabetes (also called non-insulin-dependent diabetes mellitus and formerly known as adult-onset diabetes) accounts for more than 90 to 95 percent of diabetes cases in the U.S. and is nearing epidemic proportions. With type 2 diabetes, the body either produces an insufficient amount of insulin or is unable to use it properly. Type 2 diabetes is associated with obesity, a sedentary lifestyle, and a family history of diabetes. Eating a balanced diet, losing weight, and exercising regularly can help most people avoid developing type 2 diabetes and can help those already diagnosed with type 2 diabetes bring the condition under control without the need for supplemental insulin.

Gestational diabetes, the third type of diabetes, can occur in women during late stages of
pregnancy. The condition usually disappears after the baby is born, but women with gestational diabetes are at a higher risk of developing type 2 diabetes later in life.

As of 2011, approximately 25.8 million Americans (or 8.3 percent of the population) were affected by this group of diseases. Diabetes, the 6th leading cause of death in the United States, is also associated with other health risks, including:

- Kidney failure
- Diabetic retinopathy (loss of vision and blindness)
- Heart disease and stroke
- High blood pressure
- Diabetic neuropathy (loss of the sense of touch, possible nerve damage of the arms and legs, and problems with erections in men)
- Diabetic foot disease (changes in blood vessels in the leg, which may lead to the amputation of the foot and/or lower leg)

Early detection and diagnosis can help someone avoid many of these complications by changing her/his lifestyle. If you think you might be at risk for developing type 2 diabetes, some symptoms to look out for include:

- Extreme thirst
- Frequent urination
- Hunger
- Fatigue
- High blood pressure
- Spontaneous weight loss
- Slow-healing sores
- Frequent infections
- Dry, itchy skin
- Tingling or numb feet
- Blurry vision

Many of the strategies for preventing diabetes are also used in the treatment of diabetes, including a healthy, well-planned diet and regular physical activity. Check out some of the archived Nutrition & Physical Activity [2] questions for more information about healthy lifestyle habits. Also, regardless of the type of diabetes a person has, monitor the body's blood sugar levels is advised. People with type 1 diabetes will need to have insulin delivered to their bodies by a pump or regular injections, whereas many people who develop type 2 diabetes can typically control the disease through lifestyle management and/or oral medications.

The American Diabetes Association [3] has even more information about the different types of diabetes and additional resources.

Hope this info helps you better understand this significant disease.

Alice!

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