

Diabetes Basics - Type 1 Diabetes

This type of diabetes used to be called 'juvenile diabetes' or 'insulin-dependent diabetes.' Type 1 diabetes accounts for about 5 to 10 percent of all diagnosed diabetes, so it's less common than type 2. It's an autoimmune disease, which means that your immune system (the body's system for fighting infection) has gone haywire and is destroying the cells in your pancreas that produce insulin.

Without insulin, your body can't use sugar and fat broken down from the food you eat. When sugar can't get into your cells, your blood sugar rises and it's this high blood sugar level that damages your body. A person with type 1 diabetes can't make insulin. If you have this disease, you have to take insulin in order to live. Type 1 diabetes develops most often in children or young adults but can occur at any age. It can come on suddenly, often after an illness. There is no cure for type 1 diabetes, but because of new knowledge about the disease and new medical advances, good self-care is now possible. A person with diabetes can live a healthy life and avoid or experience few complications from the disease.

Characteristics of Type 1 Diabetes

- Most common in children
- Quick onset with thirst, frequent urination, weight loss developing and worsening over days to weeks
- Usually no known family history
- No major risk factors; risk is increased if there is a strong family history
- Insulin shots required to control diabetes
- Blood glucose levels are sensitive to small changes in diet, exercise, and insulin dose

Diabetes of any kind is a disorder that prevents the body from using food properly. Normally, the body gets its major source of energy from glucose, a simple sugar that comes from foods high in simple carbohydrates (e.g., table sugar or other sweeteners such as honey, molasses, jams, and jellies, soft drinks, and cookies), or from the breakdown of complex carbohydrates such as starches (e.g., bread, potatoes, and pasta). After sugars and starches are digested in the stomach, they enter the blood stream in the form of glucose* (figure 1). The glucose in the blood stream becomes a potential source of energy for the entire body, similar to the way in which gasoline in a service station pump is a potential source of energy for your car. But, just as someone must pump the gas into the car, the body requires some assistance to get glucose from the blood stream to the muscles and other tissues of the body. In the body, that assistance comes from a hormone called insulin. Insulin is manufactured by the pancreas, a gland that lies behind the stomach. Without insulin, glucose cannot get into the cells of the body where it is used as fuel. Instead, glucose accumulates in the blood to high levels and is excreted or spilled into the urine through the kidneys.

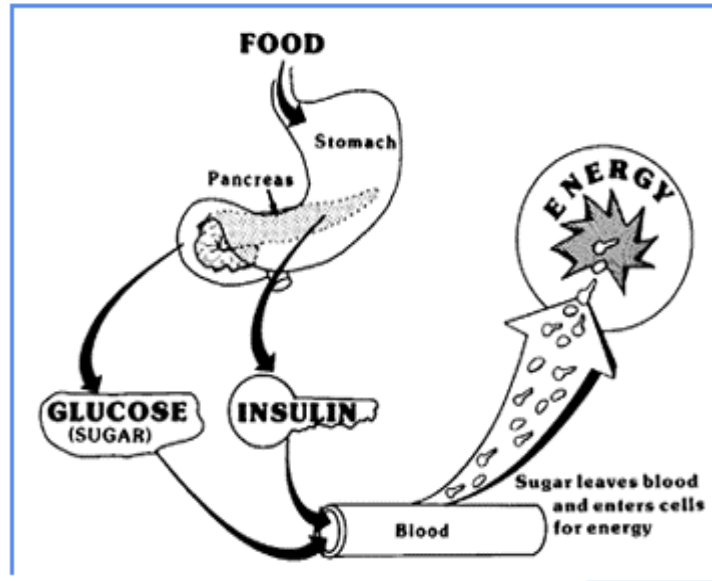


FIGURE 1

Insulin: The Key to Turning Food into Energy