



# Diabetes or Sugar and how it affects you

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Diabetes.

"Sugar" or Diabetes - whatever it is called - is serious business. Diabetes is one of the leading causes of deaths, especially in the Caribbean (and among people of ethnicity) where our culture and way of life, our eating habits for example, facilitate this condition.

The single greatest problem with diabetes diagnosis is the failure to diagnose it, because there are many who suffer from it, don't know they have it, and feel they have no reason to check for it. Therefore, the estimates of those who have the disease but are currently undiagnosed add tremendously to the large number of diabetic cases. Only about half of the people who currently have Diabetes are diagnosed.

According to Dr. Alverston Bailey, physician of Tretzel Medical Centre (formerly Kaiser Clinic) in Discovery Bay, "The most recent studies of diabetes prevalence in Jamaica revealed a rate of 11-13 percent of the total population. That's why it is

important for one to learn about Diabetes, most importantly, its symptoms and how to prevent it.

## WHAT IS DIABETES?

"Diabetes is a disorder of the metabolism in which the pancreas either produces little or no insulin or the cells do not respond appropriately to the insulin that is produced. Glucose builds up in the blood, overflows in the urine and passes out of the body. Thus, the body loses its main source of fuel," Dr. Bailey said.

The pancreas is a fish-shaped, spongy, grayish-pink organ about 6 inches (15 cm) long that stretches across the back of the abdomen, behind the stomach. The head of the pancreas is on the right side of the abdomen and is connected to the duodenum (the first section of the small intestine). The narrow end of the pancreas, called the tail, extends to the left side of the body.

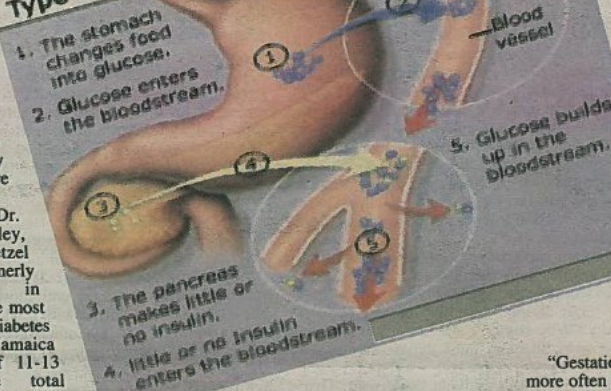
The pancreas makes pancreatic juices and hormones, including insulin. The pancreatic juices are enzymes that help digest food in the small intestine. Insulin controls the amount of sugar in the blood. As pancreatic juices are made, they flow into the main pancreatic duct. This duct joins the common bile duct, which connects the pancreas to the liver and the gallbladder. The common bile duct, which carries bile (a fluid that helps digest fat), connects to the small intestine near the stomach.

Most of the food we eat is broken down into glucose, the form of sugar in the blood. Glucose is the main source of fuel for the body. After digestion, glucose passes into the bloodstream, where it is used by cells for growth and energy. For glucose to get into cells, insulin must be present. When we eat, the pancreas is supposed to automatically produce the right amount of insulin to move glucose from blood into our cells. In people with diabetes, however, the pancreas either produces little or no insulin, or the cells do not respond appropriately to the insulin that is produced. Glucose builds up in the blood, overflows into the urine, and passes out of the body. Thus, the body loses its main source of fuel even though the blood contains large amounts of glucose.

## TYPES OF DIABETES

There are three types of diabetes - Type 1 Diabetes, Type 2 Diabetes and Gestational

### Type 1 Diabetes



### Type 1 Diabetes

"This is an auto immune disease, Dr. Bailey said. He continued, "An autoimmune disease results when the body's system for fighting infection (the immune system) turns against a part of the body. In diabetes, the immune system attacks the insulin producing beta-cells in the pancreas and destroys them. The pancreas then produces little or no insulin. A person who has Type 1 Diabetes must take insulin daily to live. At present, scientists do not know exactly what causes the body's immune system to attack the beta cells, but they believe that autoimmune, genetic and environmental factors, possibly viruses are involved."

Dr. Bailey said that Type 1 Diabetes accounts for about five to 10 percent of diagnosed diabetes. It develops more often in children and young adults, but can appear at any age.

### Type 2 Diabetes

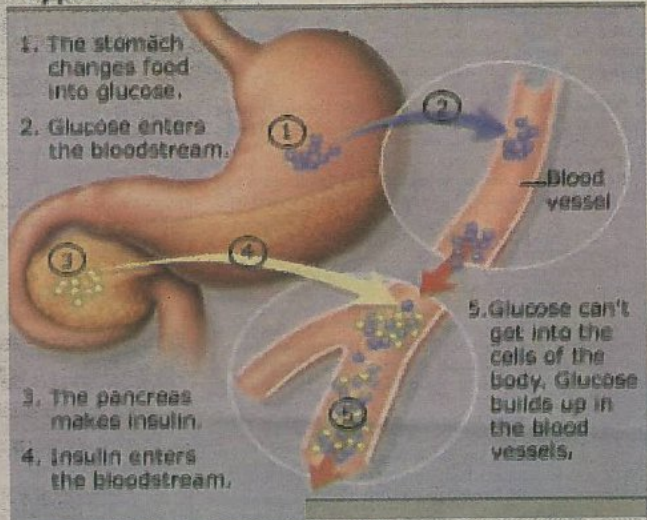
"The most common form of diabetes is Type 2," Dr. Bailey said. About 90 to 95 percent of people with diabetes have Type 2. This form of diabetes is associated with older people, obesity, family history of diabetes, previous history of gestational diabetes, physical inactivity and ethnicity. About 80 percent of people with Type 2 Diabetes are overweight. "Type 2 Diabetes is increasingly being diagnosed in children and adolescents.

According to Dr. Bailey, when Type 2 Diabetes is diagnosed, the pancreas is usually producing enough insulin, but for unknown reasons, the body cannot use the insulin effectively, a condition called insulin resistance. After several years, insulin production decreases. The result is the same as for Type 1 Diabetes - glucose builds up in the blood and the body cannot make efficient use of its main source of fuel.

### Gestational Diabetes

"Gestational Diabetes develops only during pregnancy. Like Type 2 Diabetes, it occurs more often in persons of African, Indian, and Hispanic backgrounds, and among women with a family history of diabetes. Women who have had gestational diabetes have a 20 to 50 percent chance of developing Type 2 Diabetes within five to 10 years," Dr. Bailey said.

### Type 2 Diabetes





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