

## DIABETES TIMELINE

An Egyptian physician describes frequent urination as a diabetes symptom.

1552  
BC

250  
BC

Appollonius of Egypt comes up with the term diabetes, which means "to go through," referring to how water seems to pass through people with untreated diabetes by frequent urination.

Type 1 and Type 2 diabetes were identified as separate conditions for the first time by the Indian physicians Sushruta and Charaka with T1 associated with youth and T2 with being overweight.

400-  
500  
AD

1838

George Rees, a physician at Guy's Hospital in London, isolated excess sugar from the blood serum of a diabetic patient.

German physician Hermann von Fehling devised urine qualitative tests to identify the presence of excess sugar in urine.

1849

1850

Researcher Jules Maumene developed a very simple reagent 'strip' in which drops of urine were added to pieces sheep's wool containing stannous chloride, which gave a black product if sugar was present.

Stanley Benedict devised an improved copper reagent for urine sugar, which, with modifications, became the mainstay of urine monitoring of diabetes for more than 50 years

1908

1921

Insulin, a hormone produced in the pancreas, is isolated at the University of Toronto through the work of Dr. Fredrick Banting, Charles Best (a medical student at the time), Professor J.J.R. Macleod and Dr. James Collip.

Leonard Thompson, a 14-year-old Canadian dying from diabetes, became the first person treated with insulin. The treatment dropped his blood glucose levels to near normal.

1922

1945

The first urinary self-test developed using Benedict's copper reagent developed. The small copper tablet was added to a small quantity of urine in a tube, which reacted rapidly to generate sufficient heat to cause the mixture to boil, with the color orange indicating heightened sugar levels.

The first insulin pump, large and heavy and worn like backpack, is invented.

1963

1965

The Ames-Miles Laboratory developed the first blood glucose test strip, the Dextrostix, a paper reagent strip meant to be used in doctors' offices.

The Ames Reflectance Meter (ARM) became the first blood glucose meter to use reflected light from the surface of the solid strip. It weighed more than two and half pounds due to its casing and lead acid rechargeable batteries.

1970

1976

AutoSyringe Inc. unveils the first wearable infusion pump, the AS2C, which rapidly gained acceptance from such medical specialties as chemotherapy, neonatology and endocrinology.

The hemoglobin A1C test was devised in order to create a more precise blood sugar measurement. Hemoglobin, the oxygen-carrying pigment in red blood cells, is used to track glucose changes over a period of four months.

1979

1981

LifeScan, makers of glucose test strips and blood glucose meters, was born from the vision of two men, Dr. Michael Miller, an endocrinologist, and Ted Doan, a venture capitalist.

Dr. Katherine Crothall starts Animas, the American company that specializes in making insulin pumps.

1996

2013

On March 29, the United States Food & Drug Administration approved a novel, innovative drug called INVOKANA™. Developed by Janssen Pharmaceuticals, Inc., a Johnson & Johnson company, INVOKANA™ is the first drug for Type 2 diabetes in eight years. Clinical trials indicate that the drug helped patients in three ways

- Lowering blood sugar levels
- Inducing weight loss
- Lowering blood pressure