

DIABETES

1. **DIABETES** – Inability of the pancreas to produce insulin, or the body is unable to use insulin correctly (*affects the way body cells convert sugar into energy)

2. **FUNCTION OF INSULIN:** “Opens doors” to the cells and pushes in sugar.

*Pancreas is part of the endocrine system, therefore insulin is a hormone. Endocrinology is the study of hormones.

*Artificial insulin is from pigs and can be taken as an injection, pill, or through a diabetic pump.

*Blood sugar = GLUCOSE

3. **3 TYPES OF DIABETES:**

A. Type 1: (5-10% of all cases) Autoimmune disease (immune system mistakenly attacks itself)

*Needs Insulin in daily doses through injections or insulin pump

B. Type 2: (90-95% of cases) Also called “adult onset,” but is becoming more and more prevalent in youth and teens; Can sometimes be regulated through diet/exercise, or by taking a pill

C. Gestational: Temporary diabetes condition caused during pregnancy

4. **EFFECTS OF DIABETES ON THE BODY**

A. Lack of energy

B. Long-term results if the disease is not treated include: blindness, kidney failure, amputations, heart disease and stroke (circulatory system is greatly affected)

5. **SYMPTOMS OF DIABETES**

A. Frequent urination

B. Excessive Thirst

C. Unexplained weight loss

D. Blurry vision

E. Lack of energy (fatigue)

F. Irritability

G. Extreme hunger

H. Slow healing of sores; More infections than usual

I. Tingling in hands/feet

6. TESTING FOR DIABETES – Blood test (Glucose levels) – Urine test can provide useful indicators of the presence of diabetes in some cases

3 Common tests for diagnosis of diabetes:

- Fasting plasma glucose test - A person is said to have diabetes if his or her fasting blood sugar level is higher than 126 mg/dL after not eating -- fasting -- for eight hours.
- Oral glucose tolerance test - After fasting for eight hours, a person is given a special sugary drink. That person is said to have diabetes if two hours after the drink he or she has a sugar level higher than 200.
- Randomly checked blood sugar level - If it is greater than 200, with symptoms of increased urination, thirst, and/or [weight loss](#), that person is said to have diabetes. (With this test, a fasting sugar level or oral glucose tolerance test will be needed to confirm the diagnosis.)

7. GLUCOSE LEVELS:

*Vary depending on when a person has last ingested food/drink.

A healthy fasting glucose level is less than 100mg/dL after fasting (Perhaps 70-80, and can be lower for those who are in good health in some cases) and less than 140 mg/dL 2 hours after eating. *Most people who are not diabetic will not drop below 60 even with prolonged fasting – liver works to keep sugar levels normal turning fats/muscle into usable sugars

8. LOW BLOOD SUGAR (HYPOGLYCEMIA):

-Shock symptoms caused by too much insulin, too little food, or too much exercise

9. HIGH BLOOD SUGAR (HYPERGLYCEMIA):

-Diabetic symptoms cause by too much food/alcohol (carbs/sugars), too little insulin, not enough exercise

-Patient will need more insulin to regulate and lower blood sugar levels