

Diabetes

Diabetes is a chronic metabolic disorder, resulting in the inability of the body to utilize glucose (sugar) for energy. The body either cannot produce the hormone, insulin, or it cannot effectively use the insulin it produces. This prevents the blood glucose (blood sugar) from entering the cells of the body and from being used for energy.

Diabetes falls into two main categories:

Type 1 Diabetes

Type 1 diabetes usually begins during childhood or adolescence and was originally called Juvenile Diabetes. The insulin-producing cells of the pancreas are destroyed. Treatment includes daily injection or continuous infusion of insulin with an insulin pump to maintain normal blood glucose levels along with attention to diet and exercise.

Symptoms usually develop rapidly, over a few days. The classic symptoms include increased thirst, increased hunger, increased urination, weight loss, fatigue and blurred vision.

Symptoms Type 1:

- *Increased thirst and urination
- *Weight loss
- *Blurred Vision
- *Fatigue

Type 2 Diabetes

Type 2 diabetes is the most common form of the disease and was previously called adult-onset, or non-insulin dependent diabetes. This type of diabetes usually occurs in adults over age 45. In recent years the incidence has increased in school age children and adolescents, and is believed to be linked to increased levels of obesity. A resistance to insulin rather than a deficiency of the hormone characterizes type 2 diabetes.

Treatment:

Type 2 diabetes treatment includes diet, exercise, and for some individuals, medications and/or insulin.

Symptoms Type 2:

- * Fatigue
- *Increased thirst and urination
- *Nausea
- *Rapid weight loss
- *Blurred vision
- *Slow healing wounds of sores

Symptoms:

Symptoms usually develop over a number of months and are similar to Type 1 Diabetes. These symptoms include: fatigue, increased thirst and urination, nausea, rapid weight loss, blurred vision, slow healing wounds or sores.

Acanthosis nigricans- is a physical sign of insulin resistance. This is a condition where the skin around the neck and or armpits or groin appears dark, thick, and velvety.

Some people may show no signs or symptoms at all.

Diabetes Management

The goal in treating diabetes is to control blood glucose levels by keeping them within a target range. Normal fasting blood sugar according to the American Diabetes Association is 70-130mg/dl. The key to optimal blood glucose control is to carefully balance food, exercise, and insulin or medication. As a general rule, food makes blood glucose levels go up, and exercise and insulin make blood glucose levels go down. Several other factors, such as growth and puberty, mental stress, illness, and injury also can affect blood glucose levels.

Hyperglycemia

Hyperglycemia, also called "high blood glucose," is a serious manifestation of diabetes that may be caused by too little insulin, illness, infection, stress, or emotional upset, ingestion of food that has not been covered by the appropriate amount of insulin, or decreased exercise or activity.

Over a long period of time, even moderately high blood glucose levels can lead to serious complications, such as heart disease, poor circulation, blindness, kidney failure, and amputations.

When the body does not have insulin to breakdown glucose it resorts to breaking down fats. Ketones are acids that are produced during this process. The ketones circulate and build up in the bloodstream. The body tries to compensate by "spilling" the ketones from the body by increased urination. When the levels of ketones are too much for the kidneys to handle, they build up in the bloodstream and can lead to ketoacidosis and eventually a coma.

Hypoglycemia

Hypoglycemia, also called "**low blood glucose**", is one of the most frequent complications of diabetes and can happen very suddenly. Hypoglycemia occurs when the blood glucose level falls too low, usually as a result of administering too much insulin, skipping or delaying meals or snacks, not eating enough food, exercising too long or too intensely, or a combination of these factors.

Hypoglycemia can be treated easily, but if it is not treated promptly, can lead to unconsciousness and can be life threatening.

Mild /moderate hypoglycemia symptoms may include: shaky, sweaty, blurry vision, sleepy, dizzy, confused, disoriented, irritable, inability to concentrate, weak, lethargic, change in personality of behavior.

Severe symptoms may include: inability to swallow, seizure, and unconsciousness.

Treatment for mild/moderate symptoms: give a quick acting sugar and monitor blood sugar.

Severe: call 911, administer Glucagon if available.

Symptoms:

- * Increased thirst
- *Frequent urination
- *Nausea
- *Blurred vision
- *Fatigue

Treatment: Mild/Moderate

- * 3-4 glucose tablets
 - * 4 oz. Juice
 - * 6 oz. Regular Soda
- ### Severe Symptoms
- * Position person on his/her side
 - *Call 911
 - *Administer Glucagon (If available)

Symptoms of Hypoglycemia:

Mild/Moderate:

- | | |
|--------------|-----------------------|
| Shaky | Change in personality |
| Sweaty | Change in behavior |
| Pale | Confused |
| Disoriented | Blurry vision |
| Sleepy Dizzy | |

Severe Symptoms:

- Inability to swallow
- Seizure
- Unconscious