

Diabetes

A group of metabolic diseases characterized by high blood sugar resulting in defects insulin secretion, insulin action or both

Insulin

- Insulin is a hormone produced in the beta or islet cells in the pancreas
- It is necessary to move the sugar or glucose from the bloodstream to the cells
- Glucose is necessary to keep the cells in the body healthy

Type 1 Diabetes

- Results from the autoimmune destruction of the beta or islet cells of the pancreas which produce the hormone, insulin
- Insulin is required for glucose metabolism (using blood sugar for fuel in the cells)
- A person cannot live without insulin

Type 2 Diabetes

- Characterized by insulin resistance that develops into relative insulin deficiency
- Central abdominal obesity is directly related to insulin resistance
- Fast growing epidemic in our young population
- Related to family history of diabetes, weight gain, and sedentary lifestyle

Hyperglycemia

- High blood glucose occurs when the body gets too little insulin, too much food, or too little exercise
- May also occur when a child has an illness such as a cold
- May occur when a child is under extreme stress

Symptoms of high blood sugar

- Frequent urination
- Extreme hunger
- Extreme fatigue
- Unusual thirst
- Irritability
- Blurred vision
- If a child has an insulin pump this is an extreme emergency

Hypoglycemia

- Low blood sugar, sometimes called an insulin reaction
- Occurs when blood sugar is below the target range (70-80)
- Can be caused by too much insulin, increased activity, eating too few carbohydrates

Signs of Low Blood Sugar

- Hunger
- Shakiness
- Dizziness
- Sweatiness
- Fast heartbeat
- Drowsiness
- Feeling irritable, sad or angry
- Nervousness
- Pallor

More signs of low blood sugar

- Feeling sleepy
- Being stubborn
- Lack of coordination
- Tingling or numbness of the tongue
- Personality change
- Passing out
- Seizure

Treatment for Low Blood Sugar

- Test with glucometer if possible
- Eat a fast acting carbohydrate:
 - 2 - 4 glucose tablets
 - 4 ounces of apple or orange juice
 - 4 - 8 lifesavers
 - 3 - 4 teaspoons of honey or syrup
 - 1 tube of cake gel

Severe Low Blood Sugar

- When severe hypoglycemia occurs, this indicates that not enough sugar is getting to the brain
- The person may lose consciousness and/or have convulsions
- This is a medical emergency, call your school nurse and 911
- There are 2 diabetes managers trained in each school in the event that the school nurse is not available

Initiate Treatment

- Position student on side and squeeze one tube of Cake Mate or honey into the inside pouch of the student's cheek. Do not pour directly into the back of the mouth.
- Massage the outside of the cheek containing the gel or honey. Do not put your fingers into the mouth.
- Monitor breathing and keep airway open.