

Diabetes is a chronic disease in which the body does not make or properly use insulin. Insulin is needed to convert sugar, starches, and other food into glucose, the body's main source of energy. Insulin moves glucose from the blood into the cells so it can be used as energy.

#### Type 1 Diabetes

- Auto-immune disorder the body cannot produce insulin
- Requires daily insulin
- Symptoms include increased thirst and urination, hunger, weight loss, dry skin, irritability, fatigue, and sometimes blurred vision

# Type 2 Diabetes

- The body is unable to make enough insulin or the cells have become less responsive to insulin, a condition called
  insulin resistance.
- Symptoms include those similar to Type1 diabetes, plus: frequent infections, numbness or tingling in the hands or feet, recurring skin or bladder infections, and cuts or bruises that are slow to heal.

# Hypoglycemia

- Occurs when there is too much insulin in the body for the amount of glucose
- <u>Mild symptoms include</u>: Extreme hunger, anxiety, tremors, change in normal personality, shakiness, dizziness, lethargy, headache, pallor, dilated pupils, sweating, clammy skin, increased heart rate/palpitations.
- Treatment: The "RULE of 15"
  - 1. Have student eat or drink fast acting carbohydrates (15g). May be fewer grams for young or small students.
  - 2. Check blood glucose 10-15 minutes after treatment. Compare to target range.
  - 3. Repeat treatment of 15 grams fast acting carbohydrates if blood glucose level remains low. Recheck in another 15 minutes.
  - 4. If symptoms continue or blood glucose levels do not increase, call parent/guardian.
- <u>Severe Symptoms include</u>: Seizures, convulsions, extreme tiredness/fatigue, sudden crying, restlessness, confusion, inability to swallow, dazed appearance, jerking movements, unconsciousness/coma.
- Treatment:
  - 1. Place student on his or her side
  - 2. Lift chin to keep airway open
  - 3. Inject glucagon if provided for in the student's ECP
  - 4. Never attempt to give food or put anything in the student's mouth
  - 5. Identify someone to call 911, and then call parent/guardian

### Hyperglycemia

- Occurs when there is too high a level of glucose in the blood due to: Insufficient insulin, too much food for amount of insulin taken, decrease in physical activity, illness, stress, and expired or improperly stored insulin.
- <u>Mild symptoms include:</u> Thirst, blurred vision, lack of concentration, weight loss, frequent urination, fatigue/sleepiness, increased hunger, and flushing of the skin.
- Intervention at this level will prevent progression to more severe symptoms
- Treatment:
  - 1. First, verify status with a blood glucose test
  - 2. Allow free use of bathroom and access to water (do not let student go alone)

- 3. Administer insulin
- 4. Recheck blood glucose
- 5. The parent/guardian should be notified immediately
- <u>Severe Symptoms include:</u> Labored breathing, profound weakness, confusion, unconscious, dry mouth, nausea, vomiting, stomach cramps, sweet/fruity smelling breath.
- Treatment:
  - 1. Complete ketone test
  - 2. Allow free use of bathroom and access to water (do not let student go alone)
  - 3. Give sugar-free liquids
  - 4. Administer insulin as per ECP
  - 5. Limit physical activity
  - 6. If vomiting or lethargic, call parent/guardian

# As a general rule:

- Insulin/oral medication and physical activity makes blood glucose levels go down.
- Food makes blood glucose levels go up.
- Several other factors, such as stress, illness, injury, or physical activity can also affect blood glucose levels.