

# MANAGEMENT OF DIABETIC HYPOGLYCEMIA

Hypoglycemia (low blood sugar) occurs when there is too much insulin and not enough glucose in the body. Hypoglycemic reactions are sometimes called "insulin reactions" Hypoglycemia can only occur if the client takes insulin or an oral diabetes medication. Diabetics managed with diet and exercise alone do not develop hypoglycemia.

**Causes of hypoglycemia include:** missing meals, more exercise than usual, eating later than usual, taking too much medication, and drinking alcohol. Most people feel symptoms of hypoglycemia if the blood sugar falls below 70 mg/dl

## PURPOSE

To immediately identify and treat a low blood sugar level.

## APPLIES TO

- Registered Nurses
- Licensed Practical/Vocational Nurses
- Therapists
- Other (Identify): \_\_\_\_\_

## TREATMENT

Check blood sugar level. If less than 65-70 or if symptomatic, eat glucose containing food such as: lifesavers, jelly beans, sugar cubes, 4-oz. orange or grapefruit juice, 4-oz. of soft drink, 2 tbsp of raisins or 2-3 glucose tablets.

## EQUIPMENT/SUPPLIES

- Glucagon 0.5mg to 1.0 mg (if ordered).
- Syringe.
- Alcohol Prep Pad.
- Equipment to perform blood glucose level test.

**PROCEDURE**

*Note: It is important to follow the parameters and orders of the primary care physician or nurse practitioner when responding to a hypoglycemic incident.*

1. **Mild Reaction (Blood Glucose Level of 40-65 mg/dl).**
  - a. Assess the client for symptoms, which may include:
    - Shakiness and nervousness.
    - Sweaty, cold, and clammy skin.
    - Sudden hunger.
    - Rapid heart rate.
    - Feelings of weakness or feeling lightheaded.
    - Blurred or double vision.
    - Headache.
    - Tingling or numb lips or tongue.
    - Nausea.
    - Nightmares or crying out during sleep.
  2. Perform blood glucose level monitoring according to procedure.
  3. Instruct the client to eat one of the following simple sugars as ordered by physician:
    - a. Two or three glucose tablets.
    - b. Four to six pieces hard candy (not sugar free).
    - c. One half cup orange or apple juice or soft drink.
    - d. cup skim milk.
    - e. One tablespoon of honey, corn syrup, or sugar.
    - f. Two tablespoons (one small box) of raisins.

*Fifteen grams of carbohydrate will relieve most symptoms.*

4. Instruct the client to eat another of the above simple sugars if he/she still has symptoms after ten to fifteen minutes.

**Severe Reaction (Blood Glucose Level Under 40 mg/dl).**

1. Assess the client for symptoms, which may include:
  - a. Confusion.
  - b. Personality changes, acting differently than usual.
  - c. Poor coordination, clumsiness.
  - d. Slurred speech.
  - e. Twitching muscles.
  - f. Pounding heart.
  - g. Increased weakness.
  - h. Convulsions.
  - i. Drowsiness, loss of consciousness.
2. If the client is conscious, perform blood glucose level monitoring according to procedure.
3. Instruct the client to eat one of the simple sugars listed for a mild reaction, but use up to twice the amount indicated.
4. If the client becomes unconscious, call the emergency number.
5. While waiting for emergency help to arrive:
  - a. Rub a thick form of sugar (Monogel, CakeMate, or Insta glucose, if available) on the inside of the client's cheek or under the tongue;  
OR
  - b. Inject glucagon as directed by primary care physician.
6. Immediately after symptoms have subsided, the client should have a protein snack, such as:
  - a. One-half sandwich of cheese, peanut butter, or meat.
  - b. A glass of milk.
  - c. Peanut butter and crackers.

## **TEACHING GUIDELINES**

- If the client takes an alpha glucosidase oral diabetes medicine, hypoglycemia can only be treated with glucose tablets or gel.
- Notify physician if more than one unexplained hypoglycemic reaction in a week.
- Wear medical identification tag and/or carry identification card that states client has diabetes.
- It is very dangerous to drive during a low blood sugar reaction. Wait at least 15 minutes after eating before resuming driving.
- Learn to recognize signs of low blood sugar and treat promptly.

## **RELATED PROCEDURES**

Blood Glucose Monitoring, SubQ (Insulin) Injections