

Tallahassee Memorial Metabolic Center

Hyperglycemia- high blood glucose

Causes:

- Too much food
- Not enough insulin produced
- Infection, illness, stress
- Decreased activity

Symptoms:

- Thirst
- Frequent urination
- Tiredness
- Blurry vision
- Hunger
- High blood glucose readings on meter

Actions:

- Validate meter function with control test to determine meter accuracy
- Check for expiration date on strips and code on meter if applicable
- Increase intake of non-sugared beverages
- Re-evaluate treatment plan for increased food intake, missed doses of medication, decline in physical activity
- Monitor blood glucose levels with improvement in plan-if high readings continue, contact physician

Hyperglycemia is considered to be a value of 126 mg/dl or above on a fasting blood test for an individual that has not been diagnosed with diabetes. This is used as a diagnostic tool to diagnose new onset of diabetes.

Individuals with diabetes have blood glucose readings consistently above target levels when hyperglycemia is present.

American Diabetes Association target glucose recommendations:

Fasting blood glucose.....	90-130 mg/dl.
Pre-meal blood glucose.....	90-130 mg/dl
1-2 hour post-meal glucose.....	below 140
A1C (3 month average).....	7.0% or less

Hypoglycemia-low blood sugar

Causes:

- Not enough food due to late or skipped meal or insufficient carb intake
- Too much insulin produced
- Increased physical activity
- Alcohol consumption

Early Symptoms:

- Cold, clammy skin
- Shaky
- Sweating
- Numb lips
- Weakness, dizziness
- Hunger
- Loss of ability to concentrate
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Late stage Symptoms:

- Slurred speech
- Staggering gait
- Profound confusion

Will progress to unconsciousness if left untreated!

Action: Rule of 15= 15 grams of fast acting carb every 15 min. until BG >70

- Take blood sugar if meter available-if no meter available and symptoms are present, treat as a low
 - **IF BLOOD GLUCOSE IS ABOVE 70- NO TREATMENT IS NEEDED**
 - **IF BLOOD GLUCOSE IS LESS THAN 70- TREAT!**
- Take 15 gram of fast acting carbohydrate
 - 3 square glucose tablets
 - 4 round glucose tablets
 - Glucose gel tube
 - 1 cup skim milk
 - 4 oz. orange juice (4-5 swallows)
 - 4 oz. **regular, not diet** soda (4-5 swallows)
 - 3 hard candies or 4-6 life savers

DO NOT TAKE FOODS CONTAINING FAT (CHOCOLATE) AS THEY SLOW DOWN THE ACTION OF THE CARBOHYDRATE.

- Wait 15 minutes. **DO NOT** continue eating; may have water.

- Retest blood glucose.
 - **IF BLOOD GLUCOSE LESS THAN 70- REPEAT TREATMENT, WAIT 15 MINUTES AND RETEST**
 - **IF BLOOD GLUCOSE ABOVE 70-TREATMENT SUCCESSFUL!**
- If blood glucose now above 70 determine the cause of low.
 - If meal was delayed or skipped then eat the meal
 - If meal was eaten but increased activity or low carb content caused the low, a 15 gram carb + protein snack is needed
 - ✓ 1 cup of milk
 - ✓ ½ sandwich (1 slice bread) of meat, cheese or peanut butter
 - ✓ 6 saltines with cheese or peanut butter

When to contact physician:

- If more than 2 treatments were needed to bring glucose to above 70
- 2 or more incidences occur in 1 week

Medical ID is important for all individuals with diabetes. IDs enable first responders to more quickly determine a possible cause for the individual's confusion or unconsciousness. The most common cause of unconsciousness in diabetes is hypoglycemia.

Individuals with diabetes taking insulin or medications that increase the production of insulin are more susceptible to hypoglycemic events when combined with decreased food intake or increased activity.

Individuals with diabetes can experience the symptoms of hypoglycemia at numbers that are considered to be at target if they had previously been at readings that were significantly elevated. When their blood glucose levels fall to normal, the body recognizes it as a hypoglycemic event. If treated at a normal reading, the blood glucose returns to the elevated levels and gaining control of blood glucose levels will be prolonged. Frequent episodes of hypoglycemia can result in **hypoglycemic unawareness- BG may be very low before symptoms of hypoglycemia are felt.**

Using the rule of 15 can help prevent highs from over treating lows.

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