Hyperglycemia
(High Blood Glucose)

Hyperglycemia occurs when the glucose (*sugar*) in your blood is too high. Hyperglycemia can happen for many reasons, but it most often happens to people who do not know they have diabetes or are not managing their diabetes properly.

CAUSES

Whether you have diabetes or not, there are other causes of hyperglycemia. Hyperglycemia can occur when you have diabetes, but it can also occur in other situations that you might not be as aware of, such as:

Diabetes

- If you have diabetes and are having problems controlling your blood glucose, hyperglycemia could occur because of some of the following reasons:
  - Not following your meal plan.
  - Not taking your diabetes medications or not taking it properly.
  - Exercising less or doing less activity than you normally do.
  - Being sick.

Pre-diabetes

- This cannot be ignored. Before people develop Type 2 diabetes, they almost always have "pre-diabetes." This is when your blood glucose levels are higher than normal, but not yet high enough to be diagnosed as diabetes. Research has shown that some long-term damage to the body, especially the heart and circulatory system, may already be occurring during pre-diabetes. If you take action to manage your blood glucose when you have pre-diabetes, you may delay or prevent Type 2 diabetes from developing.

Stress

- If you have diabetes, you may be "diet" controlled or on oral medications or insulin to control your diabetes. However, you may find that your blood glucose is higher than usual in the hospital whether you have diabetes or not. This is often referred to as "stress hyperglycemia." Stress can elevate your blood glucose. This happens because of hormones put out by the body during times of stress. If stress has been the cause of your high blood glucose, it can be followed regularly by your caregiver. That way he/she can make sure your hyperglycemia does not continue to get worse or progress to diabetes.

Steroids

- Steroids are medications that act on the infection fighting system (*immune system*) to block inflammation or infection. One side effect can be a rise in blood glucose. Most people can produce enough extra insulin to allow for this rise, but for those who cannot, steroids make blood glucose levels go even higher. It is not unusual for steroid treatments to "uncover" diabetes that is developing. It is not always possible to determine if the hyperglycemia will go away after the steroids are stopped. A special blood test called an A1c is sometimes done to determine if your blood glucose was elevated before the steroids were started.

SYMPTOMS OF HYPERGLYCEMIA

- Thirsty.
- Frequent urination.
- Dry mouth.
- Blurred vision.
- Tired or fatigue.
- Weakness.
- Sleepy.
- Tingling in feet or leg.

DIAGNOSIS

Diagnosis is made by monitoring blood glucose in one or all of the following ways:

- A1c test. This is a chemical found in your blood.
- Fingerstick blood glucose monitoring.
- Laboratory results.

TREATMENT

First, knowing the cause of the hyperglycemia is important before the hyperglycemia can be treated. Treatment may include, but is not be limited to:

- Education.
- Change or adjustment in medications.
- Change or adjustment in meal plan.
- Treatment for an illness, infection, etc.
- More frequent blood glucose monitoring.
- Change in exercise plan.
- Decreasing or stopping steroids.
- Lifestyle changes.

HOME CARE INSTRUCTIONS

- Test your blood glucose as directed.
- Exercise regularly. Your caregiver will give you instructions about exercise. Pre-diabetes or diabetes which comes on with stress is helped by exercising.
- Eat wholesome, balanced meals. Eat often and at regular, fixed times. Your caregiver or nutritionist will give you a meal plan to guide your sugar intake.
- Being at an ideal weight is important. If needed, losing as little as 10 to 15 pounds may help improve blood glucose levels.

SEEK MEDICAL CARE IF:

- You have questions about medicine, activity, or diet.
- You continue to have symptoms (problems such as increased thirst, urination, or weight gain).

SEEK IMMEDIATE MEDICAL CARE IF:

- You are vomiting or have diarrhea.
- Your breath smells fruity.
- You are breathing faster or slower.
- You are very sleepy or incoherent.
- You have numbness, tingling, or pain in your feet or hands.
- You have chest pain.
- Your symptoms get worse even though you have been following your caregiver's orders.
- If you have any other questions or concerns.

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