# Hyperglycemia

#### **GENERAL INFORMATION**

A high blood glucose (sugar) level is called hyperglycemia. It develops when there is not enough insulin. If not treated, hyperglycemia can lead to complications known as ketoacidotic coma and hyperosmolar coma.

Ketoacidosis is most common in people with type 1 (insulin-dependent) diabetes. This type usually develops over a few hours or days. Urine tests show moderate to high levels of ketones. Hyperosmolar coma occurs in people with type 2 (non-insulin-dependent) diabetes. This type is more common in the elderly, especially during illness. It may take days or even weeks to develop.

## **GUIDELINES**

It is important to learn how your body feels with high blood sugar so that you can take action right away (see table below).

#### **PREVENTION**

- 1. Follow your diet, medication, activity, and blood or urine testing plan properly.
- 2. Tell any new doctor or dentist that you have diabetes before you have any procedure or operation done.
- 3. Sick-day guides:
  - **a.** Check with your doctor or nurse for specific directions.
  - **b.** Treat all illness seriously.
  - **c.** Take insulin or diabetes pills as directed.
  - d. Test your urine or blood for sugar. Test your urine for ketones if instructed to do so by your doctor or nurse every 4 hours and if your blood sugar is over 240 milligrams/deciliter. Record the results.
  - **e.** Drink fluids often. Drink about half a cup of water, tea, or broth every hour.
  - **f.** Try to eat normally.
- 4. Remember, call your doctor or nurse if:
  - **a.** You are sick more than 24 hours and are not getting better.

	High (250–350 mg/dl)	Very High (over 350 mg/dl)
WHAT IT FEELS LIKE (SYMPTOMS)	Increased urination Increased thirst Tiredness, weakness Blurred vision	Same as for high blood sugar but with Loss of appetite, feeling ill Nausea, vomiting Stomach pain Dehydration (dry mouth and skin) Fruity, acetone breath Deep, rapid breathing Drowsiness, mental dullness Unconsciousness Ketones in urine
WHAT CAUSES IT	Too little insulin or diabetes pills Too much or the wrong type of food Infection, illness, injury, or operation Emotional stress Decreased activity (without adjusting food intake) Previously undiagnosed diabetes Pregnancy	Same as for high blood sugar Ignored or not properly treated high blood sugar
WHAT TO DO (TREATMENT)	Follow your meal, medication, and activity plan properly Follow the sick-day guides your doctor or nurse has given you Test your urine for ketones Call your doctor or nurse when you have an infection or have been sick more than 24 hours (without getting better) Call your family or friends for help if you cannot take care of yourself	Call your doctor or nurse immediately. You need treatment quickly Call your emergency number if you cannot reach your doctor or nurse Test your urine for ketones

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- **b.** Your blood sugar is over 240 milligrams/deciliter for two tests in a row.
- Your urine shows moderate to high levels of ketones
- **d.** You have symptoms of very high sugar levels.
- e. You are not able to eat.

## **SPECIAL NOTES**

If you have experienced low blood sugar levels within the past 24 hours, your body may release a

hormone that may make your blood sugar levels high for several readings. This is called rebounding. The blood sugar level should return to normal after several readings. If you call your doctor or nurse, inform him or her you experienced low blood sugar levels *before* having high blood glucose levels.

# **OTHER INSTRUCTIONS**