

# Managing Blood Glucose Levels



## What is blood glucose?

Blood glucose is the amount of glucose (sugar) in your blood at a given time.

## How do you monitor your blood glucose levels?

A blood glucose meter is used to monitor your blood glucose levels at home. These meters can be purchased at most pharmacies. Talk with your diabetes educator or pharmacist about which model is right for you. Once you purchase a meter, ensure you receive the proper training before you begin to use it.

If you have diabetes, you should try to keep your blood glucose levels as close to your target range as possible. This will help to delay or prevent complications of diabetes.

## Why should you check your blood glucose levels?

Checking your blood glucose levels will:

- Provide a quick measurement of your blood glucose level at a given time.
- Determine if you have a high or low blood glucose level at a given time.
- Show you how your lifestyle and medication affect your blood glucose levels.
- Help you and your diabetes health care team to make changes to your lifestyle and medication that will improve your blood glucose levels.

## Canadian Diabetes Association blood glucose targets for people with diabetes\*

	A1C	Fasting blood glucose	Blood glucose two hours after the start of a meal
Target for most patients with diabetes	≤7.0%	4.0 to 7.0 mmol/L	5.0 to 10 mmol/L. 5.0 to 8.0 mmol/L if A1C targets are not being met

\*These targets are for most adults with diabetes and serve as a guide. They do not apply to children 12 years of age or under, or pregnant women. Talk to your family health care provider about your blood glucose target ranges.

## Ask your diabetes educator about:

- the size of the drop of blood needed;
- the type of blood glucose strips to use;
- how to clean the meter;
- how to check if the meter is accurate; and
- how to code your meter.

# Managing Blood Glucose Levels



## Managing your blood glucose when you're ill

When you are sick, your blood glucose levels may fluctuate and be unpredictable. During these times, it is a good idea to check your blood glucose levels every two to four hours. It is also very important that you continue to take your diabetes medication. If you have a cold or flu and are considering using a cold remedy or cough syrup, ask your pharmacist to help you make a good choice. Since many cold remedies and cough syrups contain sugar, try to pick sugar-free products.

When you are sick, it is **VERY IMPORTANT** that you:

- Drink plenty of sugar-free fluids or water; try to avoid coffee, tea and colas as they contain caffeine, which may cause you to lose more fluids.
- Replace solid food with fluids that contain glucose, if you can't eat according to your usual meal plan;
- Try to consume 15 grams of carbohydrate every hour;
- Call your family health care provider or go to an emergency room if you vomit and/or have had diarrhea two times or more in four hours; and
- If you are on insulin, continue taking it while you are sick.

Check with your health care providers about guidelines for insulin adjustment during an illness.



## Lows and highs: blood glucose levels outside of your target range

### What is low blood glucose?

When the amount of blood glucose (sugar in your blood) has dropped below your target range (less than 4 mmol/L), it is called low blood glucose or hypoglycemia.

### What are the signs of a low blood glucose level?

You may feel:

- Shaky, light-headed, nauseous
- Nervous, irritable, anxious
- Confused, unable to concentrate
- Hungry
- Your heart rate is faster
- Sweaty, headachy
- Weak, drowsy
- A numbness or tingling in your tongue or lips

### What causes a low blood glucose level (hypoglycemia)?

Low blood glucose may be caused by:

- More physical activity than usual
- Not eating on time
- Eating less than you should have
- Taking too much medication
- Drinking alcohol

Low blood glucose can happen quickly, so it is important to take care of it right away. If your blood glucose drops very low, you may:

- Become confused and disoriented
- Lose consciousness
- Have a seizure

You will need assistance from another person. Make sure you always wear your MedicAlert® identification, and talk to your family health care provider or diabetes educator about prevention and emergency treatment for severe low blood glucose.



### How do I treat a low blood glucose?

If you are experiencing the signs of a low blood glucose level, check your blood glucose immediately. If you don't have your meter with you, treat the symptoms anyway. It is better to be safe.

Eat or drink a fast-acting carbohydrate (15 grams):

- 15 g of glucose in the form of glucose tablets (preferred choice)
- 15 mL (3 teaspoons) or 3 packets of table sugar dissolved in water
- 175 mL (3/4 cup) of juice or regular soft drink
- 6 Life Savers® (1 = 2.5 g of carbohydrate)
- 15 mL (1 tablespoon) of honey

Wait 10 to 15 minutes, then check your blood glucose again. If it is still low:

- Treat again
- If your next meal is more than one hour away, or you are going to be active, eat a snack, such as a half-sandwich or cheese and crackers (something with 15 grams of carbohydrate and a protein source).

For more information on blood glucose levels, watch the video "Managing Your Blood Glucose" in this kit.

# Managing Blood Glucose Levels

## What is high blood glucose and what are some of the signs?

When your blood glucose level is above your target range (see chart on the first page of this fact sheet), you may:

- Be thirsty
- Urinate more often
- Be tired

## What causes high blood glucose (hyperglycemia)?

High blood glucose can result when food, activity and medications are not balanced. High blood glucose may happen when you are sick or under stress.

## What do I do if I have high blood glucose?

Maintaining healthy eating habits and an active lifestyle, and taking medication, if necessary, will help you keep your blood glucose levels within their target range. If your blood glucose levels are high, talk to your family health care provider about:

- Adjusting your medication and/or insulin
- Adjusting your meal plan
- Increasing your physical activity

