

# Lows and highs: blood sugar levels

## What is **LOW** blood sugar?

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 sugar or hypoglycemia.

## What are the signs of a **LOW** blood sugar level?

You may feel:

- Shaky, light-headed, nauseated
- 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
- Nausea

Low blood sugar can happen quickly, so it is important to treat it right away. If your blood sugar drops very low, you may need help from another person. Very low blood sugar can make you:

- Confused and disoriented
- Lose consciousness
- Have a seizure

## What causes a **LOW** blood sugar level (hypoglycemia)?

### Low blood sugar may be caused by:

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

## How do I treat **LOW** blood sugar?

If you are experiencing the signs of a low blood sugar level, check your blood sugar 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
- 15 mL (1 tablespoon) or 3 packets of sugar dissolved in water
- 150 mL (2/3 cup) of juice or regular soft drink
- 6 LifeSavers® (1 = 2.5 g of carbohydrate)
- 15 mL (1 tablespoon) of honey (do not use for children less than 1 year old)

### Wait 15 minutes, then check your blood sugar again. If it is still low:

- Treat again; wait 15 minutes, check your blood sugar. Continue these steps until your blood sugar is above 4

### When your blood sugar is above 4:

- If your next meal is more than one hour away, or you are going to be active, eat a snack, such as half of a sandwich or cheese and crackers (something with 15 grams of carbohydrate and a protein source)
- Wait 40 minutes after treating a low blood sugar before driving

Think about why your blood sugar went low and make the necessary changes to avoid low blood sugar again.

Make sure you always wear your MedicAlert® identification, and talk to your doctor or diabetes educator about prevention and emergency treatment for severe low blood sugar.

## What is **HIGH** blood sugar?

When your fasting blood glucose (sugar in your blood) is at or above 11 mmol/L, you may:

- Be thirsty
- Urinate more often than usual, especially during the night
- Be tired

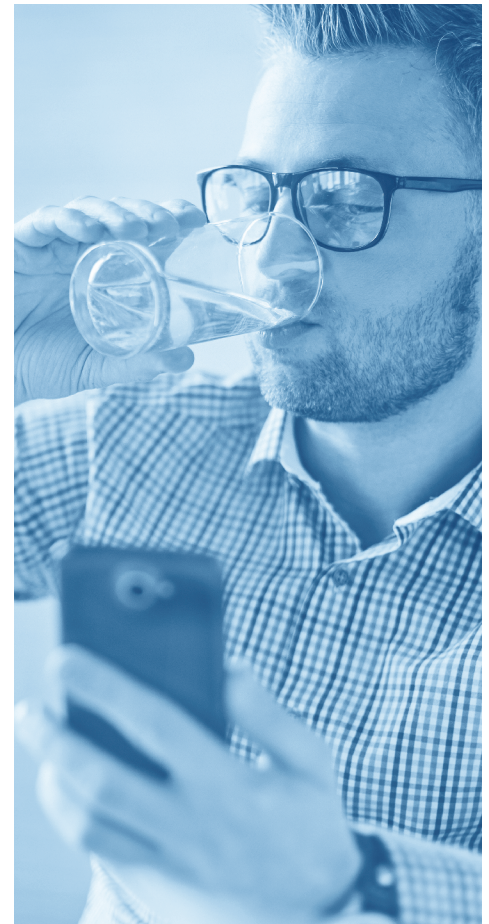
## What causes **HIGH** blood sugar (hyperglycemia)?

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

## What do I do if I have **HIGH** blood sugar?

Follow the treatment recommended by your doctor, diabetes educator or other member of your health-care team. If this happens often, you may need to call or see your doctor to:

- Adjust your meal plan
- Adjust your physical activity
- Adjust your medication and/or insulin



**Related article:** *Diabetes, Type 1 the basics, Type 2 the basics, Hypoglycemia and Staying healthy with diabetes*

**DIABETES  
CANADA**

**diabetes.ca | 1-800 BANTING (226-8464) | info@diabetes.ca**

Diabetes Canada is making the invisible epidemic of diabetes visible and urgent. Eleven million Canadians have diabetes or prediabetes. Now is the time to End Diabetes - its health impacts as well as the blame, shame and misinformation associated with it. Diabetes Canada partners with Canadians to End Diabetes through education and support services, resources for health-care professionals, advocacy to governments, schools and workplaces, and, funding research to improve treatments and find a cure.

This document reflects the 2018 Diabetes Canada Clinical Practice Guidelines © 2018 The Canadian Diabetes Association. The Canadian Diabetes Association is the registered owner of the name Diabetes Canada. 112024 04/18