



Examples of foods that provide approximately 15 g of carbohydrate:

- 1 slice of bread or toast
- 7 soda crackers
- 4 melba toast
- 3/4 cup (175mL) hot cereal
- 1 medium-sized fruit
- 1/2 cup (125mL) regular Jell-O, ice cream or sherbert
- 1 popsicle (75mL)

If you are having problems eating any solid foods, then you can try some of the following fluids. These items contain 15g of carbohydrate:

- 1/2 cup (125mL) juice
- 3/4 cup (175mL) regular soft drink (caffeine-free)
- 1 cup (250mL) milk
- 1/2 cup (125mL) Glucerna
- 1 cup (250mL) Gatorade

Avoid milk products if you are vomiting or have diarrhea.

**What if I want to take other medications when I'm sick?** Ask your PROfile Pharmacist about how other medications you are considering may affect your blood sugar.



**WHERE TO FIND MORE INFORMATION**

**The Canadian Diabetes Association**

National Office:  
15 Toronto St., Suite 800  
Toronto, Ontario M5C 2E3  
Phone: 1-800-226-8464 for the regional office nearest you or visit their website.  
e-mail: info@diabetes.ca  
www.diabetes.ca

**American Diabetes Association**

ATTN: National Call Center  
1701 North Beauregard St.  
Alexandria, Virginia USA 22311  
Phone: 1-800-342-2383  
e-mail: AskADA@diabetes.org  
www.diabetes.org

**Juvenile Diabetes Research Foundation International**

Phone: 1-800-533-CURE  
e-mail: info@jdrf.org  
www.jdrf.org

The information found in this PROfile health brochure is of a general nature only. It is not intended to replace the advice of your pharmacist, physician, or other healthcare provider. If you have questions relating to your specific health concerns, please contact your personal healthcare provider.



Your PROfile Pharmacist has many resources for diabetes education and is always available to discuss your health concerns!

EXCLUSIVELY AT



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Managing Diabetes During a Brief Illness





## UNDERSTANDING THE IMPLICATIONS OF ILLNESS FOR PEOPLE WITH DIABETES

### Why does sickness put people with diabetes at greater risk of developing high blood glucose?

When we get sick, our bodies are put under stress. To deal with stress, the body releases hormones (eg. glucagon, norepinephrine and steroids). In people with diabetes, these hormones increase the levels of blood glucose, sometimes to alarmingly high levels. Insulin may not work as usual to help regulate blood glucose levels. Illness may also be accompanied by dehydration (loss of body fluids) from increased urination, vomiting and diarrhea. Therefore, it is more difficult to maintain blood glucose control during times of illness.

**What are the dangers associated with high blood glucose levels?** High blood glucose levels may lead to a condition called ketoacidosis, especially in people with type 1 diabetes. Ketoacidosis is a condition in which ketones are formed as a result of your body breaking down fat for energy when there is not enough insulin. This is a serious condition, and if not treated, diabetic ketoacidosis can lead to coma. It is important

to monitor blood glucose and ketones closely and to recognize the symptoms associated with high blood glucose that can result in diabetic ketoacidosis:

- **Hyperglycemia** (high blood glucose) – increased thirst, frequent urination, blurred vision, tiredness.
- **Ketoacidosis** – stomach cramps, nausea and vomiting, dehydration, fatigue, deep rapid breathing, fruity-smelling breath and potential unconsciousness.

A condition similar to diabetic ketoacidosis may develop in people with type 2 diabetes. Known as hyperosmolar hyperglycemic state (HHS), it may occur as a result of prolonged hyperglycemia and dehydration, especially in older people.

Both ketoacidosis and hyperosmolar hyperglycemic state are dangerous conditions and can be life-threatening.



**At what point do I need to call the doctor when I'm sick?** You should call your doctor, diabetes educator or go to your hospital emergency if:

- You have been sick or have had a fever for a couple of days and are not getting better.
- You have vomited and/or have had diarrhea two times or more in four hours. This is especially important if you have type 1 diabetes. Vomiting and stomach pain may be signs that ketoacidosis is occurring.
- If you have type 1 diabetes and your blood glucose level is more than 14 mmol/L, and you have ketones in your blood or urine.
- If you take pills for your diabetes and your blood sugar level climbs to more than 14 mmol/L before meals and stays there for more than 24 hours.
- You have symptoms that might signal ketoacidosis or dehydration or some other serious condition (eg. your chest hurts, you are having trouble breathing, your breath smells fruity, or your lips or tongue are dry and cracked).
- You are not certain what to do to take care of yourself.

When you call for medical help, you should be ready to discuss what medications you have been taking and how much, how long you've been sick, whether you can eat and keep food down, whether you have lost weight, and what your temperature, blood sugar level, and ketone levels are. You should keep written records of all these things as soon as you become sick.



### EXTRA MEASUREMENTS

- **If you have type 1 diabetes**, you may need to measure your blood sugar and ketones (in urine or blood) every 4 hours. Ketone measurement is very important as these can build up while you are sick and cause ketoacidosis.
- **If you have type 2 diabetes**, you may need to check your blood sugar 4 times a day if you don't do so already.



## THE IMPORTANCE OF A SICK-DAY PLAN

**What is a Sick-Day Plan?** A sick day plan is a strategy that you, your doctor and diabetes team come up with to deal with those times when you are sick.

It should include:

- what medications to take
- how often to check your blood sugar and for ketones
- if you use insulin, how to adjust it during illness
- how to manage any other health conditions you may have
- when to contact your doctor

**A sick-day plan is personalized for you and is very important for you to have. Below are a few things to remember.**

- **Keep drinking fluids.** When you are sick and your blood glucose levels are high, you urinate more often as the body tries to get rid of the excess glucose. Your body may lose water. It is important to drink plenty of fluids to help maintain good hydration. You need about one cup (250ml) of sugar-free fluids every hour. Examples of sugar-free liquids include: water, diet soft drink (caffeine-free), broth, clear soup, sugar free Kool Aid, Crystal Lite.

Try to avoid caffeine-containing drinks, (coffee, tea and colas), which may cause you to lose more fluids.

- **Continue taking diabetes medications and/or insulin as directed.** Illness may cause blood glucose levels to rise, regardless of food intake. You always need to take insulin and may even need extra insulin. Make sure that you have a sick-day plan that outlines how to adjust your insulin during an illness. Some people with type 2 diabetes may also need to use insulin for a short time as directed by their doctor.

- **Try to eat regularly.** Illness makes it difficult to stick to a meal plan, however it is important to try and take in your normal number of calories. If you can eat, continue to take your usual meals. If you feel too sick to eat, try having a food choice that contains 15 g of carbohydrate every hour.