

Sick Day Management

For patients with Type 1 Diabetes on a pump

Why is it important to manage sick days?

You have a higher chance of going into diabetic ketoacidosis (DKA) when you are sick.

When you are sick your blood sugar may get higher than normal. If you do not have enough insulin, your body will start burning fat for energy. When your body burns fat for energy it makes ketones. This can cause diabetic ketoacidosis.

How should I manage my diabetes if I am sick?

1. Check your blood sugar every 2 to 4 hours and during the night.
2. Do not stop taking your insulin.
3. You may need extra insulin to help manage your blood sugar.
4. You may need less insulin if you are vomiting, have diarrhea or do not feel like eating.
5. To avoid getting dehydrated, drink 250 millilitres (8 ounces) of water or sugar-free fluids every hour when you are awake. Some examples include:
 - Diet juice or diet pop
 - Broth or consommé
 - Sugar-free Jell-O
 - Sugar-free Crystal Lite

6. If you are not able to eat your meal, try eating 15 grams of carbohydrate every hour or 45 grams of carbohydrate every 3 to 4 hours.

Foods and drinks with 15 grams of carbohydrate

Solids	Liquids
<ul style="list-style-type: none"> • 6 soda crackers • 1 slice of bread • 4 melba toast • 1 piece of fruit (apple, pear, orange) • ½ cup applesauce 	<ul style="list-style-type: none"> • ¾ cup regular pop • ¾ cup fruit juice • 1 cup Gatorade • 1 cup milk • 1 to 2 popsicles (1 popsicle = 1 stick)

Can I continue taking my medicines if I am sick?

If you are not able to drink enough fluids, you may need to stop taking some of your medicines. Speak to your doctor if you take any of these types of medicines.

- Blood pressure pills
- Water pills
- Diabetes pills
- Pain medicine
- Non-steroidal anti-inflammatory drugs

If you are not sure if you take any of these medicines, speak to your doctor, pharmacist or diabetes team.

Tip – Have a sick day kit that includes:

- This handout
- Glucose tablets for low blood sugar
- Sugar-free beverages
- Thermometer
- Ketone meter and strips (Precision Neo is the only ketone meter available)

When should I ask for help?

- If you vomit 2 or more times in 12 hours.
- If you are vomiting or have diarrhea, and you cannot eat or drink anything for 4 hours.
- If you are sick for more than 24 hours or you start to feel worse.
- If you take extra insulin, but your blood sugars do not go down.
- If you get symptoms of diabetic ketoacidosis: abdominal pain, nausea, vomiting or difficulty breathing.
- If you are not able to keep your blood sugars above 4 mmol/L.

When should I test for ketones?

- If your blood sugar is above 16 mmol/L on two tests in a row, check your blood or urine for ketones every 4 hours.
- If you take a diabetes medication called an SGLT2 inhibitors (for example, Canagliflozin, Dapagliflozin, or Empagliflozin) you will need to test for ketones when your blood sugar is above 10 mmol/L.
- If you have ketones in your blood or urine, you will need more insulin to correct your high blood sugar.

How do I adjust my insulin for ketones?

1. If you have ketones in your urine or blood, you will need to take extra rapid acting insulin.
 - If you are not eating, take the extra insulin in addition to your regular correction dose.
 - If you are eating, take the extra insulin in addition to your regular meal and correction dose.

2. Use the chart below to find out how much extra insulin you need.

Your blood sugar	Blood ketones	Urine ketones	Action needed
less than 3.9 mmol/L	none	none	<ul style="list-style-type: none"> Do not take extra insulin. You may want to decrease your mealtime insulin. Seek medical help if you are vomiting.
4.0 to 16.0 mmol/L	less than 1.5	trace to moderate	<ul style="list-style-type: none"> Take your usual dose of insulin for meals and to correct a high blood sugar.
more than 16.0 mmol/L	1.5 to 3.0 or more	moderate to large	<ul style="list-style-type: none"> Increase the correction dose suggested by your pump by 20 percent. For example, if your pump suggests 5 units, increase your dose by 1 unit and take 6 units. And increase your basal rate by 20 to 50 percent by setting a temporary basal rate for 3 to 4 hours. Seek medical help.

St. Michael's cares about your health. For reliable health information, visit our Patient and Family Learning Centre, Room 6-004, 6th floor, Cardinal Carter Wing, or find us online at www.stmichaelshospital.com/learn

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