

GUIDE

Managing your Diabetes when you are Sick

Type 1 Diabetes



The Ottawa Hospital | L'Hôpital
d'Ottawa

Disclaimer

This is general information developed by The Ottawa Hospital. It is not intended to replace the advice of a qualified health-care provider. Please consult your own personal physician who will be able to determine if this information is appropriate for your specific situation.

P887 (02/2011)

Printed at The Ottawa Hospital

A fever, bad cold, or flu can increase your body's need for insulin. Your blood sugar may go up even if you take your usual insulin and you are not eating.

1. Plan ahead

- Discuss sick days with your diabetes team before you get sick.

2. Keep track of your blood sugar and ketone levels.

- Test your blood sugar every four hours.
- Test your urine or blood for ketones every four hours if your blood sugar is higher than 14.0 mmol/L. Blood ketone testing is more reliable than urine testing. You will need to take more insulin than usual if your body is producing ketones.
- Write down the results so that you have this information if you need to share it with a nurse or doctor.

3. Take your usual insulin.

- Always take your usual basal or longer acting insulin at your usual time.
- Use your usual insulin to carbohydrate ratio to decide how much insulin to take to cover food or drink.

4. Take extra rapid acting insulin if you have high blood sugar and ketones.

- If your blood sugar levels are high and ketones are normal, take your usual correction dose of insulin every four hours.
- If your blood sugar levels are high **and** your ketone levels are also elevated ("moderate" or "high" for urine ketone test or greater than 0.6 mmol/L for blood ketone test), you should **add one to two units** of insulin to your usual correction bolus every four hours (see table on pages 3 and 4).

5. Try to eat as usual.

- If you can't eat your regular meal, some examples of choices to replace meals are listed on page 5.

6. Try to drink plenty of fluids.

- If you can, drink four to eight ounces (half a cup to one cup) of water or sugar free fluids every hour, especially if you are vomiting or have diarrhea.

7. Go to the nearest emergency department if:

- Your blood sugar levels continue to rise or they do not come down within four hours after taking your correction dose.
- Your blood sugar remains high and you are unable to drink liquids for more than eight hours.
- You have nausea, vomiting, abdominal pain or fruity smelling breath and your blood sugar levels remain higher than 14 mmol/L.

If you have questions, call your diabetes health-care team or the doctor on-call for Endocrinology at 613-761-4221.

When to take rapid acting insulin when you are sick.

Blood sugar (mmol/L)	Ketone test		Action to take
	Blood (mmol/L)	Urine	
< 4			<ul style="list-style-type: none"> • Treat the low. Do not take extra insulin. • Seek medical attention if vomiting
4 – 14			<ul style="list-style-type: none"> • Take usual insulin • Test blood glucose every four to five hours
> 14	< 0.6	Negative or trace	<ul style="list-style-type: none"> • Take usual rapid or fast acting insulin every four hours based on your usual correction factor • Test ketones and blood glucose every four hours
> 14	0.7 – 1.4	Moderate	<ul style="list-style-type: none"> • Take usual rapid or fast acting insulin based on your usual correction factor plus add 1 or 2 extra units • Continue to test ketones and blood glucose every four hours

Blood sugar (mmol/L)	Ketone test		Action to take
	Blood (mmol/L)	Urine	
> 14	≥ 1.5	High	<ul style="list-style-type: none"> • Take usual rapid or fast acting insulin based on your usual correction factor plus add 1 or 2 extra units • Seek urgent medical attention or go to the hospital emergency department as soon as possible
> 14	Some ketones and abdominal pain, persistent vomiting and fruity smelling breath	Some ketones and abdominal pain, persistent vomiting	<ul style="list-style-type: none"> • Take usual rapid or fast acting insulin based on your usual correction factor plus add 1 or 2 extra units • Seek urgent medical attention or go to the hospital emergency department as soon as possible

Examples of 15 g of carbohydrate choices

- 125 mL ($\frac{1}{2}$ cup) juice or regular soft drink
- Meal substitute for diabetes (check label for amount)
- 1 Popsicle (double stick)
- 125 mL ($\frac{1}{2}$ cup) apple sauce
- 250 mL (1 cup) milk
- 175 mL ($\frac{3}{4}$ cup) plain yogurt
- 7 soda crackers
- 1 slice of bread
- $\frac{1}{2}$ English muffin
- 2 digestive cookies
- 3 graham crackers
- 375 mL ($1\frac{1}{2}$ cup) vegetables or chicken noodle soup
- 100 mL ($\frac{1}{3}$ cup) ice cream
- 240 mL (8 oz) sport drink

Notes

