

sick day survival



When you get sick, your body is under a state of **stress**. As your body tries to fight off the infection or get better from the illness, hormones are released to help your body heal. These hormones can **increase your blood sugars**, which can make it harder to keep your blood sugars in target as you recover. If your blood sugars stay too high for too long, it can take longer for you to get better.

have a plan in advance

1 | check your blood sugar often

Your goals are to prevent hyperglycemia (high blood sugars) and DKA*, as well as hypoglycemia (low blood sugars). Check your blood sugar **at least every 4 hours** when you are ill.

2 | continue to take your insulin & medications**

It is important for you to **continue to take your insulin**, as the stress of being sick will make your blood sugars higher than they usually are.

Sometimes, you may need **extra insulin**, even though you may be eating less than usual. You will always need your background (basal) insulin dose, but your meal-time (rapid/bolus) insulin can be taken more often to correct the higher blood sugars caused by illness. You may also need to take extra meal-time insulin if you have **ketones** in your bloodstream.

****Vomiting or diarrhea can increase your risk of dehydration.** Signs of dehydration include:

- less urine than usual, or dark yellow urine
- vomiting or diarrhea (>3 times/day)

If you are not able to drink enough fluid to stay hydrated, you should **STOP** the following medications during the time you are dehydrated:

- blood pressure pills
- water pills
- pain medications
- non-steroidal anti-inflammatory drugs (commonly found in pain medications like Advil, and cold remedies)

3 | choose easy-to-digest foods

When you are sick, your body still needs food for energy to fight off the infection or illness, but it can be difficult to eat if you feel nauseous.

Choose **easy-to-digest carbohydrates** such as:

- ½ cup of orange juice
- 1 cup skim or 1% milk
- ½ cup unsweetened applesauce
- 1 piece of toast
- ½ cup Glucerna
- ¾ cup artificially-sweetened yogurt
- 1 small banana
- 7 crackers
- ½ cup jello
- 1 twin popsicle
- ½ cup hot cereal

Note: these portions are equal to approximately 15 grams of carbohydrates each.

If you are unable to tolerate solid foods, replace with sugar-containing fluids as needed. Aim to consume 10-15 grams of carbohydrate every hour.

4 | stay hydrated

Illness can cause you to become dehydrated from frequent urination and/or vomiting. Aim to drink at least **1 cup of sugar-free, caffeine-free fluids** (water is always the best choice!) **every hour** to stay hydrated. You can also try sipping on clear broth for hydration and electrolytes.

*what is DKA?

- **Diabetic ketoacidosis (DKA)** is a serious problem that can happen to someone living with type 1 diabetes if ketones build up in their blood. If your body is unable to use the sugar in your bloodstream for fuel because there is not enough insulin available, the body will burn fat for fuel instead. Burning fat makes ketones, and when ketones build up in the bloodstream, they can be **toxic**.
- DKA is a **medical emergency** and should always be treated in hospital –not at home.
- **Nausea and/or vomiting** along with **very high blood sugars** are early signs of DKA. Other symptoms may include fruity-smelling breath, abdominal pain, difficulty breathing, fatigue, and excessive thirst.

sick day specifics

You may need more insulin when you have high blood sugar with or without ketones.

In order to know how much extra insulin you may need, your average Total Daily Dose (TDD) needs to be calculated. Add up the number of insulin (all kinds) that you take on a usual day.

My Total Daily Dose (TDD): _____ units

If you have ketones in your blood stream, you will need to take a **supplemental dose** of rapid insulin just to get rid of those ketones. You may also need to take your **usual correction dose** of insulin if your blood sugar is above target.

If you are using a blood ketone meter (*Precision Neo or Novamax Plus* ---ensure you have separate **ketone test strips for these meters**), you may wish to use the table below as a guide to help you figure out how much extra insulin to take to get rid of ketones.

Calculate 10% of your TDD: _____ units; 15%: _____ units; 20%: _____ units



blood sugar (mmol/L)	blood ketones (mmol/L)	recommended action <small>*if able to take fluids</small>	your supplemental dose <small>*in addition to your usual correction dose</small>
Less than 3.9	none	<ul style="list-style-type: none"> No extra insulin Decrease dose of pre-meal insulin as directed If vomiting, contact your diabetes educator 	
4 to 16	Less than 0.6	<ul style="list-style-type: none"> Use usual insulin dose 	
4 to 16	0.6 or more	<ul style="list-style-type: none"> Take 10% of TDD 	
Over 16	Less than 0.6	<ul style="list-style-type: none"> Take 10% of TDD 	
Over 16	0.7 to 1.4	<ul style="list-style-type: none"> Take 15% of TDD 	
Over 16	1.5 to 3.0 or more	<ul style="list-style-type: none"> Take 20% of TDD 	

If blood ketones are more than 3.0 at any time, go straight to the ER

**Note these are guidelines, please review with your diabetes educator or endocrinologist for your individual needs.*

sick day checklist

- ✓ logbook
- ✓ glucometer
- ✓ medication list
- ✓ glucagon kit (for a severe low)
- ✓ easy-to-digest carbs (crackers, applesauce, popsicles)
- ✓ blood ketone meter & ketone strips
- ✓ thermometer
- ✓ clear soup/broth or juice or Gatorade

know when to seek help

- Go to the ER if you:
- are unable to take your insulin
 - have severe or frequent vomiting or diarrhea
 - you cannot eat or keep any fluids down
 - you have a fever lasting longer than 24 hours
 - you are very tired, short of breath, dizzy, or in a lot of pain

know who to call

(record telephone numbers here)

pharmacist: _____

family doctor: _____

diabetes educator: _____