Type 1 Diabetes Sick Day Management

1. Prevention is Key

- Get your flu shot yearly
- Eat a healthy diet
- Get plenty of rest
- Stay hydrated
- Don't smoke
- Avoid others who are sick

2. Continue your Medications

Illness is a stress that leads to an overproduction of sugar in the body. **It is important to continue taking your insulin when you are sick**. Sometimes you may need extra insulin, even though you are eating less.

When you are ill, particularly if you become dehydrated (e.g. vomiting or diarrhea), some medicines could cause your kidney function to worsen or result in side effects.

If you become sick and are unable to drink enough fluid to keep hydrated, you should **STOP** the following medications:

- Metformin
- Blood pressure pills: _____
- Water pills: _____
- Diabetes pills: _____
- Pain medications: _____
- Non-steroidal anti-inflammatory drugs including ibuprofen (Advil) or naproxen (Aleve) found in some over-the-counter pain or cold remedies

Avoid oral decongestants (found in medications used to treat nasal congestion) and medications containing sugar (most syrups and lozenges) as these may cause high blood sugars.

Continue all other medications, including insulin, unless otherwise directed by your doctor.

3. Monitor your Blood Sugars

The goal of sick day management is to prevent:

- High blood sugars and diabetic ketoacidosis (DKA)
- Low blood sugars

Test your blood sugars and ketones every 4 hours and before meals when you are sick. If your blood sugars are high and ketones are present, you will need to take extra insulin (see back of handout).

4. Stay Hydrated

Illness may cause dehydration from frequent urination, diarrhea, and/or vomiting. Drink at least 8 cups of sugar-free fluids or water per day.

5. What if I don't feel like eating?

When you are ill your body still needs food for energy. If you are feeling nauseous it can be hard to find things to eat. Choose easy to digest foods such as these:

- ½ cup apple juice
- 1 cup skim milk
- ½ cup unsweetened apple sauce
- 1 piece of toast
- 1 small banana
- 7 crackers

All of these portions contain 15g of carbohydrate. If you are unable to eat solid foods, replace with sugar containing fluids. Aim for 10-15g of carbohydrate per hour.

6. Know when to seek help

Go to the emergency department if:

- You are unable to take your insulin
- You are unable to tolerate fluids
- You have persistent high or low blood sugars
- You have blood ketones that are >3.0 at any time or urine ketones that are large
- You have symptoms of DKA (see next page)

What is DKA?

Diabetic Ketoacidosis (DKA) usually occurs only in Type 1 diabetes. If you have a high level of sugar in your blood and a low level of insulin, your body cannot use the sugar to produce energy. Instead your body will break down fats and produce substances called ketones. Excess ketones in your blood can make it acidic and cause symptoms such as **nausea, vomiting, abdominal pain, difficulty breathing, and fruity smelling breath**. If left untreated the excess ketones can cause DKA which can lead to coma or death. DKA is a **medical emergency and should be treated in a hospital.** Following sick day guidelines and checking your blood sugar with a meter can help prevent DKA.

Sick Day Specifics

1. Check your blood sugar & ketones every 4 hours and keep in touch with your health care team or diabetes educator during illness.
    - If you have ketones, you should check your blood sugar every 2 hours, and if your blood sugar is above 14 mmol/L re-test ketones.
2. Additional insulin doses may be needed if your blood sugars are higher than normal or ketones are present.
3. Use the chart below to decide how much rapid/fast-acting insulin to take in addition to your usual insulin dose.
4. If your blood sugars are < 14.0 mmol/L and you have ketones, drink fluids that contain sugar to prevent hypoglycemia while treating ketones.
5. If your blood sugars are still high after following the guidelines, if you are experiencing low blood sugars, or you are unable to keep down liquids (vomiting), call your doctor or educator, or go to the emergency room.
6. If your ketones are >3.0 mmol/L or urine ketones that are large **go to the emergency room!**

Add up the **TOTAL** number of units of insulin (long acting and rapid acting) that you take on a usual day. This is called your **Total Daily Dose (TDD)**.

My TDD: _____ units
Calculate: 10%=_____units, 15%=_____units, 20%=_____units

This is the extra dose of rapid acting insulin (or supplement) in ADDITION to your usual correction

Blood Sugar (mmol/L)	**Blood Ketones** (mmol/L)	**Urine Ketones**	**Recommended Action** If able to take fluids	**Your Supplemental Dose**
<3.9	none	none	- No extra insulin - Decrease dose of pre-meal insulin as directed	
4.0 - 16.0	<0.6	Neg/trace/small	- Take usual insulin	
4.0 - 16.0	≥0.6	Moderate/large	- Take 10% TDD	
>16.0	<0.6	Small	- Take 10% TDD	
>16.0	≥0.7-1.4	Moderate	- Take 15% TDD	
>16.0	≥1.5-3.0	Large	- Take 20% TDD	

*** Please note that these are guidelines only. Please check with your doctor or educator for your individual needs*