
Understanding How Your Diabetes Affects You When You Are Sick

Having the flu places everyone, those who have diabetes as well as those who do not, under stress which causes your body to release hormones. However, these hormones interfere with insulin resulting in higher blood sugar levels.

For those with diabetes, especially Type-1, dehydration and blood acidity are potentially fatal problems which underscore the importance of proper monitoring and caring for yourself when you are sick.

Understanding how diabetes may cause dehydration.

This is a major risk for anyone with diabetes who is sick. Excess sugar in the blood stream eventually makes its way to the kidneys. Though some glucose is urinated out of the body, fluids are still being drawn into the kidneys from the higher than normal concentration of glucose. In other words, high blood sugars make your body produce more urine, which can in turn worsen dehydration.

Compound this with fluids lost through vomiting, diarrhea or a fever, and diabetic dehydration can rapidly worsen. Fluids are heavy; it is possible to lose more than 10 pounds just from a loss of fluids.

Understanding how your blood may become acidic when you're sick.

Before we begin this description, there are a few bits of information you need to better understand this process.

1. There are multiple sources your body taps into for fuel and it follows this hierarchy:
 - I. Glucose
 - II. Fat (fatty acids)
 - III. Protein (amino acids)
2. Insulin opens the door of the cell, allowing glucose to enter.
3. When the liver breaks down fats, it also produces ketones
4. Ketones are acidic. Ketones have a fruity odor which may be smelled on the breath and may be a sign of developing ketoacidosis.
5. Your body's organs and systems can only function properly in a certain pH range. When the body's pH drops (becomes acidic) too low, there is a danger of organ failure.

When your cells can't receive glucose, the liver perceives this as an insufficiency in your blood stream and it starts to break down its fat to push out more glucose. This process creates ketones. pH will start to drop as the concentration of ketones in the blood stream increases.

This build up of acidic ketones along with dehydration describes what is called,

When You Catch A Cold

Blood sugars can rise quickly when you have a cold, flu or infection. So, when you are sick, it is very important to stay well hydrated and closely monitor your blood sugars. Prepare ahead of time and have on hand easy to digest foods and your 'sick-day only' fluids such as Sprite or Ginger-Ale.

- ♦ Let a friend or family member know you are having a sick day.
- ♦ Test your blood sugar level more often - at least every 3-4 hours.
- ♦ Have 3 carb-servings (45-50 grams of carbohydrates) every 3-4 hours.
- ♦ Continue with your diabetes medications.
- ♦ Drink lots of non-calorie liquids such as water or tea.
- ♦ Maintain your weight . Weigh yourself in the morning and evening.
A sudden drop in weight may be due to water loss.
- ♦ If you are unable to eat solid foods, maintain your carbohydrate intake with sugary drinks.
- ♦ Those with Type-1 diabetes, test your blood or urine for ketones.
If it's high, track it to make sure it comes down as you adjust your insulin and fluid intake.

Examples of easy to digest foods that are approximately 1 carb-serving.

FLUIDS

- 1 double-stick popsicle
- 1 cup Gatorade
- 1 cup Milk
- 1 cup Soup or broth
- 1/2 cup Fruit Juice
- 1/2 cup Soft Drink (not diet)

FOODS

- 1/3 cup frozen yogurt
- 1/2 cup regular ice cream
- 1/4 cup regular pudding
- 1/2 cup regular Jell-O
- 1/2 cup cooked cereal
- 1/2 cup custard
- 1/2 cup mashed potatoes
- 1/4 cup sherbert
- 1 slice dry toast (not light bread)
- 6 saltines
- 5 vanilla wafers
- 4 lifesavers
- 3 graham crackers

When You Catch A Cold

Often it's just a simple cold or flu which gets better within 1 or 2 days. However, there are other times when it's more than a simple cold or flu and you may need to call the office, go to an urgent care or emergency center.

- ◆ Your simple cold or flu isn't getting better within 1-2 days.
- ◆ You are progressively getting worse and feeling weaker and weaker.
- ◆ You are now having diarrhea.
 - Diarrhea can be a major source of fluid and electrolyte loss in any acutely ill individual. This may worsen dehydration which further cascades the worsening hyperglycemia.
- ◆ The cold or flu progresses into vomiting.
 - Vomiting is also extremely serious especially if you are simultaneously losing large amounts of fluids while being unable to replace your fluid loss. This is when diabetics typically must seek medical attention immediately.
- ◆ You have a high fever that won't come down.
- ◆ You have abdominal pain (you may have more than a simple flu or cold).
- ◆ Your ketones are not heading downwards.
- ◆ You are unsuccessful in getting your sugars to come down.
- ◆ Symptoms that might signal ketoacidosis or dehydration:
 - chest pain
 - having trouble breathing
 - breath smells fruity
 - lips or tongue are dry and cracked
 - unable to think clearlyShould you experience these symptoms, immediately seek medical attention.



When To Seek Medical Attention

- You can't keep liquids down.
- You have vomiting or diarrhea for more than 6 hours.
- You have not eaten normally for more than 24 hours.
- You have a fever over 100.°F.
- You have trouble breathing.
- Infected extremities - ulcers or infected in-grown toe nails.
- Blood sugars over 400 or less than 70.
- You are unable to get your blood sugars below 300
- Palpitations (heart beating fast)
- Chest pain or any chest complaints.
- Abdominal pain
- Seizures
- You can't stay awake or think clearly.
- Slurring of speech
- Numbness
- Can't move arms, legs, fingers or toes