



Sick Day Management for People with Type 1 Diabetes

When a person with type 1 diabetes (T1D) gets sick, blood glucose (or sugar) can increase drastically. This can cause the blood to become acidic and lead to diabetes ketoacidosis (or DKA), a dangerous and life-threatening condition that requires immediate medical attention.

T1D Exchange Quality Improvement Collaborative (T1DX-QI)'s Patient Parent Advisory Committee and physicians have created this Sick Day Management guide for people living with type 1 diabetes to manage their blood glucose when ill and provide tips to prevent DKA.

What to do if sick:

1. Check your blood glucose level every 2-4 hours.
2. Check for ketones using a ketone meter or urine ketone strips.
3. Drink plenty of fluids, such as water, sports drink, or broth (diet or regular depending on blood glucose levels.)
4. Never stop giving yourself insulin completely. In fact, more insulin may be needed when you are sick. Contact your healthcare team for guidance on whether, when, and how to adjust your insulin doses.
5. Vomiting with ketones could be a symptom of **DKA** which means you may need more insulin. *(Note: Some providers will prescribe anti-nausea medicine (Ondansetron) to reduce vomiting and nausea. However, because this medication can mask symptoms of DKA, consult with your healthcare provider about what is right for you.)*
6. Contact your healthcare team if you:
 - a. Vomit (**assume it is DKA**)
 - b. Have moderate or large ketones
 - c. Experience any **DKA** symptoms (listed below)
 - d. For any point you have concerns
7. If you can't reach your healthcare team quickly
 - a. If you experience DKA symptoms, go to the nearest emergency care center.
 - b. Contact a friend or family member to help you.



SIGNS & SYMPTOMS OF DKA

- inability to drink fluids or urinate
- BG above 240/250 mg/dL
- very dry mouth/excessive thirst
- “fruity” smelling breath
- nausea, vomiting
- stomach cramps
- fast and/or deep breathing

DKA - Diabetes Ketoacidosis develops when your body doesn't have enough insulin to allow blood sugar into your cells for use as energy.

What to do in advance:

1. Discuss a sick day plan with your health care provider at your next appointment
2. Have supplies ready for treating low blood glucose (hypoglycemia)
 - a. For mild hypoglycemia, have fast acting carbohydrates (ex. juice, full sugar sports drinks, full sugar ginger ale or candy such as glucose tabs, honey, or fruit snacks)
 - b. For severe hypoglycemia, have glucagon available (injectable and/or nasal) and know how and when to use it. Determine if mini-glucagon injections may be helpful to you (discuss this with your healthcare team)
3. Keep an updated list of emergency contact numbers nearby
 - a. Friends/family who can help
 - b. Physician's office and physician's office on-call number
 - c. Street address of your closest 24-hour care center and/or emergency team
4. Bookmark a reputable, online sick day app or website. Here is one good option:
<https://www.umpedsdiabetes.com/sick-day-guide>

Sick Day Guide Citations:

- <https://onlinelibrary.wiley.com/doi/10.1111/pedi.13415>
Phelan H, Hanas R, Hofer SE, James S, Landry A, Lee W, et al. Sick day management in children and adolescents with diabetes. *Pediatric Diabetes*. 2022;23(7):912-25.
- <https://diabetesonthenet.com/wp-content/uploads/pdf/dotn024ae8fb1b78500b7bc752b98e9b6d92.pdf>
Down, Su. "How to advise on sick day rules." *Diabetes Prim Care* 22 (2020): 47-48.
- <https://pubmed.ncbi.nlm.nih.gov/30079506/>
Laffel LM, Limbert C, Phelan H, Virmani A, Wood J, Hofer SE. ISPAD Clinical Practice Consensus Guidelines 2018: Sick day management in children and adolescents with diabetes. *Pediatr Diabetes*. 2018 Oct;19 Suppl 27:193-204. doi: 10.1111/pedi.12741. PMID: 30079506



This Sick Day Management plan should not replace the need to reach out to your diabetes team. In an emergency call 911.

Acknowledgments:

Thank you to T1D Exchange's Quality Improvement Patient Parent Advisory Committee and our network of clinics for contributing to this resource.

