American Diabetes Association.

Learn, Do, & Act

Diabetic Ketoacidosis (DKA) - Healthy Steps for Healthy Living

LEARN:

TYPE 1 DIABETES, ENERGY, AND THE LINK TO DKA

Carbohydrates from food become blood glucose (blood sugar). Insulin carries glucose from your blood into cells, where it provides energy. With type 1 diabetes, your body makes no insulin or too little to meet its needs. As a result, blood glucose remains high, and carbohydrates cannot be used to provide the energy your body needs.

When glucose cannot supply energy, your body breaks down its fat instead. Although that may sound helpful, the energy produced takes the form of ketones (fatty acids). Small amounts of ketones pass in urine (pee), but most remain in the bloodstream. This is called **diabetic ketoacidosis (DKA).**

DKA can harm people with diabetes because it may:

- Lead to dehydration
- Make the blood more acidic and potentially cause brain swelling
- Lead to a coma
- Cause death

Watch for these early warning signs of DKA:



More frequent urination



High ketones on a urine test with a ketone strip



Intense thirst



Intense headache



Dehydration



Elevated blood glucose levels

Watch for these more serious symptoms of DKA:



Breath that smells fruity or sweet



Very dry mouth



Always feeling tired



Reddened skin/face



Nausea and/or vomiting



Belly pain



Trouble breathing



Tiredness



Dry skin



Trouble paying attention or feeling confused

Find out more: **diabetes.org** | 1-800-DIABETES (800-342-2383)

This graphic draws on recommendations in the ADA's *Standards of Care in Diabetes–2026*

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DO:

STAY WELL

DKA can sound frightening, but there is reassuring news. Knowing the warning signs and changing some habits and behaviors can do a great deal to help you prevent DKA.

Take these steps to help prevent DKA in the future:

- Manage your diabetes well (ask your doctor if your blood glucose is outside your target range)
- Take each drug as directed, particularly your insulin
- Drink lots of plain water during the day
- Use a healthy meal plan and never skip meals
- Keep physically active
- Look for infections
- Check insulin's expiry date. Do not use cloudy or clumped insulin. If you use an insulin pump, check the tubing for any leaks or trapped air bubbles.
- See your doctor as soon as you begin to feel ill



TEST YOUR LEVELS

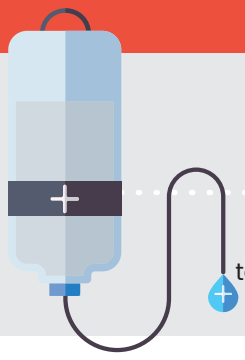
If you notice any DKA signs or symptoms, check blood glucose and ketone levels. Look for:

- **High blood glucose** (over 240 mg/dL), checked with blood glucose test strips, a glucose meter, or a continuous glucose monitor
- **High urine ketones**, checked using at-home urine ketone strips, an acetone breathalyzer, or a blood glucose meter

ACT:

Prepare a personal DKA emergency plan so you can act immediately. If you think you may have DKA, call your doctor or visit the nearest urgent care clinic or emergency department.

Treatment involves:



- IV insulin to lower ketone levels
- Replace fluids by IV to correct dehydration



- Replace lost electrolytes, particularly sodium, potassium, and chloride, to support the heart, muscles, and nerves.



- Antibiotics (if infection is present)

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