

Know, Do, & Act

Diabetic Ketoacidosis (DKA) — Healthy Approaches for Healthy Living

KNOW:

TYPE 1 DIABETES AND THE BODY-ENERGY CONNECTION TO DKA

When you eat carbohydrates, they are converted to blood glucose (blood sugar). Insulin moves glucose out of the blood and into cells where it is used for energy. People living with type 1 diabetes do not make insulin or do not make enough for what their body needs, causing blood glucose levels to stay high and preventing carbs from turning into energy to fuel your body.

If your body cannot get energy from glucose, it will get it by breaking down its own fat. This might sound like a good thing, however, the energy this creates is in the form of ketones (fatty acids). A small amount of ketones are released through urine (pee), but most will remain in the blood stream. This is called **diabetic ketoacidosis (DKA)**.

DKA is harmful to people living with diabetes because it can:

- Cause dehydration
- Make blood more acidic, which could lead to brain swelling
- Cause the body to go into a coma
- Even cause death

Be on the lookout for the first warning signs of DKA, which include:



Needing to urinate more



High ketones when checking urine with a ketone strip



Extreme thirst



Severe headache



Dehydration



High blood glucose levels

Keep an eye out for more serious DKA symptoms, which include:



Fruity or sweet-scented breath



Very dry mouth



Constantly feeling tired



Flushed skin/face



Nausea and/or vomiting



Abdominal pain



Hard to breathe



Fatigue



Dry skin



Challenging time paying attention or confusion

DO:

LIVE WELL

While the thought of having DKA may worry you, there is good news! You can do a lot to prevent DKA from happening by being aware of what to watch for along with changing certain habits and behaviors.

Make sure to do the following to prevent cases of DKA in your future:



Effectively manage diabetes (talk to your doctor if your blood glucose levels are out of target range)



Take all your medications, especially insulin, as directed



Drink plenty of plain water throughout the day



Follow a healthy meal plan and do not miss meals



Stay physically active



Watch for infections



Check for expired insulin (do not use if it has clumps or is cloudy, or if using an insulin pump, ensure there are no leaks or air bubbles in the tube)



Visit your doctor at the first sign of feeling sick



CHECK YOUR LEVELS

If you are feeling any signs or symptoms of DKA, check your blood glucose levels and ketones. Be on the lookout for:

- **High blood glucose levels** (over 240 mg/dL) (measure through blood glucose monitoring test strips, glucose meter, or continuous glucose monitor)
- **High levels of ketones in the urine** (measure through at-home urine ketone test strips, acetone breathalyzer, or blood glucose meter)

ACT:

It is important to have your own DKA emergency plan in place to act right away. If you feel you may be in DKA, call your doctor or go to the nearest urgent care clinic or emergency department.

Treatment includes:



IV insulin to bring ketones down

IV fluid replacement to treat dehydration



Electrolyte replacement to replace those lost (especially sodium, potassium, and chloride for heart, muscles, and nerve function)



Antibiotics (if there is an infection)