

DKA (Diabetic Ketoacidosis) and Ketones

Diabetic Ketoacidosis (DKA) is a serious illness that can lead to diabetic coma (passing out for a long time) or even death.

Ketones are produced when your body burns fat for energy instead of sugar. High levels of ketones are a warning sign that your blood sugar is very high or that you are getting sick.

Ketones can poison the body. When ketone levels get too high, you can develop DKA. DKA can happen to anyone with diabetes, though it is rare in people with type 2.

Treatment for DKA usually takes place in the hospital. You can help prevent it by learning the warning signs and checking your blood sugar regularly. If you have Type 1 Diabetes, also check your ketones if your blood sugar is over 250 mg/dL.

What are the warning signs of DKA?

DKA usually develops slowly. But after vomiting starts, DKA can develop in a few hours. Symptoms include:

- Thirst or dry mouth
- Frequent urination
- Blood sugar above 250
- High ketone levels
- Feeling tired
- Dry or flushed skin
- Nausea, vomiting, or stomach pain (contact your health provider if vomiting lasts more than 2 hours)
- Difficulty breathing (short, deep breaths)
- Fruity breath odor
- A hard time paying attention or confusion

Ketoacidosis (DKA) is dangerous and serious.

If you have any of the above symptoms, contact your doctor IMMEDIATELY, or go to the nearest emergency room of your local hospital



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How Do I Check for Ketones?

Ask your doctor when and how you should check for ketones. You can check for ketones with a simple urine test kit which is available at any pharmacy without a prescription.



When Do I Check?

- When you are sick, check every 4 to 6 hours.
- When blood sugar is more than 250 mg/dL, check every 4 to 6 hours.
- When you have any symptoms of DKA.

What If I Find High Levels of Ketones?

Call your doctor when you find *moderate or large levels of ketones* after testing more than once. Moderate levels are 40-80 mg/dL and large levels are 80-160 mg/dL. Often your doctor can tell you what to do and how to test over the phone.

Do **NOT** exercise when your urine tests show ketones and your blood glucose is high. Your diabetes could be out of control.

What Causes DKA?

Here are some reasons for moderate or large ketone levels:

- **Not enough insulin.** Maybe you did not give yourself enough insulin. Or your body could need more insulin than usual because of illness.
- **Not enough food.** When you cannot eat, your body makes ketones. This causes nausea and vomiting.



DKA is life threatening!
Know the symptoms!