

Diabetes: Ketone Testing



Not having enough insulin can keep your body from using sugar for energy, even when your blood sugar level is very high. Instead, your body has to break down fats to get the fuel it needs. The fats are broken down into a type of acid which, if it builds up, can cause serious problems with vital organs. These acids are called ketones. When ketone levels get high, your kidneys release them into your urine.

Having large amounts of ketones in the urine can be a sign of diabetic ketoacidosis. This is a dangerous condition caused by a lack of insulin.

When to test for ketones

Test for ketones whenever:

- You feel sick to your stomach, are vomiting, or have belly pain.
- You have an illness or infection.
- You are dehydrated.
- Your blood sugar is above 300.
- You have missed a dose of your diabetes medicine.
- You have symptoms of high blood sugar.

- You are pregnant. Ask your doctor about testing for ketones during pregnancy.

Symptoms of high blood sugar

If you have **mild high blood sugar**, you may feel very thirsty and may urinate more, especially at night. Your skin may be warm and dry.

If you have **moderate high blood sugar**, your breathing may be fast and deep. Your breath may have a fruity odor. You may lose your appetite and have stomach pain and vomiting. You may become dizzy and weak when you sit or stand. Your urine may be dark, and you may urinate less. Your vision could become blurred.

If you have **severe high blood sugar**, you may have rapid, deep breathing with a strong, fruity breath odor. You may feel very sleepy and weak, and you may faint. You may have a fast heart rate and a weak pulse. This is a very dangerous condition.

How to test for ketones

You test your urine for ketones by using tablets or plastic strips.

- Collect a urine sample in a clean container.
- Follow the directions on the bottle of test strips or tablets.
- If the test strip changes color, or if the urine changes color when the tablet is dropped into the sample, ketones are present in your urine sample. The test results range from negative up to 4+ or low to high. A negative result means you do not have ketones in your urine.

If the results of your ketone test show your ketone level is more than 1+ or is moderate to high, **call your doctor now.**

If you start to feel drowsy or disoriented, **call 911 immediately.**