

# Diabetic Ketoacidosis

Diabetic Ketoacidosis (DKA) is a potentially life threatening complication of diabetes, but there are steps you can take to catch it early and prevent serious harm.

# What is DKA?

Diabetic Ketoacidosis, or DKA, is a build up of acidic ketones in the blood. This happens when there is not enough insulin or when the body cannot use the insulin.



# When blood becomes more acidic, it puts you at risk for coma, brain damage, death.

Note: small amounts of ketones that occur from eating fewer carbs are different than the ketones that come from insufficient insulin which can cause DKA, and are not life-threatening. For more information, ask your Expert.

# When to test for ketones:

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## High Blood Glucose (BG)

When BG levels stay above 300 mg/dL (16.7 mmol/L) more than a few hours, this can indicate that the body does not have enough insulin.

#### **During Sick Days**

The body may not be responding to insulin very well during times of illness (called insulin resistance).

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If you're experiencing the following symptoms:

Nausea, upset stomach

Vomiting

Dehydration

Fatigue/lethargy

Difficulty breathing

Fruity smelling breath

# Who is at risk?



People who do not make their own insulin.

People who pump insulin, if there is a malfunction with the pump, tubing or site. This can cut off all insulin and there is no background insulin available for the body to use.

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People with a current illness or infection.

# How to test for ketones

Most people use a urine dipstick test, but there is a blood ketone tester available too.

## 1 Check expiration date

Do not used expired strips. Write the date that bottle was opened. They are only good 90 days after opening.





## 2 Test and wait

Take a ketone test strip out of the bottle, taking care not to touch the padded end. Collect a sample of urine in a clean container and dip the padded end into the urine for the amount of time stated in the instructions.





#### 3 Compare colors

Compare the color of the result to the color chart on the bottle.



Follow your doctor's instructions for handling moderate or large ketones. If you are unsure, call your doctor. If you are experiencing the symptoms of DKA shown above, go immediately to the nearest emergency room.

# Tips to prevent DKA



#### Test blood sugar often

Test often, especially if you do not make any insulin, pump insulin, or are ill.



#### Test for ketones at least once a day

If your blood sugar stays elevated, or if you are feeling ill (blood sugar can be within range, but ketones can still be moderate or large).

Do not exercise if ketones are moderate to large. This will burn more fat and create more ketones, putting you more at risk.



#### Take insulin as directed

Ask your doctor how to handle missed or forgotten injections safely.

Call your doctor to ask about a temporary change to your insulin dose or regimen. If you pump, you may need to switch to injections until the ketones are cleared out.



#### **Drink fluids**

Drink water or sugar free fluids to flush out ketones – about 1 cup every hour. If you are unable to keep down any fluids, go to an ER right away.