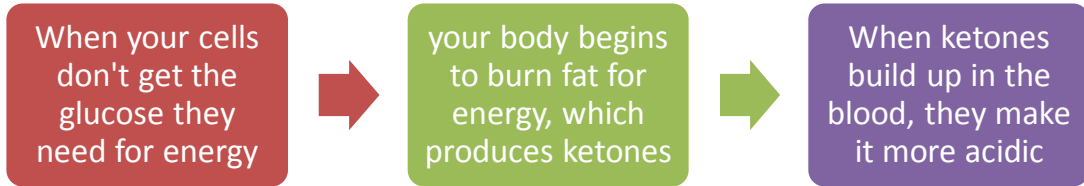


# Diabetic Ketoacidosis (DKA)

- Dear patient we wish you speedy recovery. This guide will give you important information about DKA, kindly read the patient information leaflet (PIL) included with your tablets.
- Diabetic ketoacidosis (DKA) is a serious condition that can lead to diabetic coma or even death.<sup>1</sup>



- The body does this when it doesn't have enough insulin to use glucose, the body's normal source of energy.<sup>1</sup>
- They are a warning sign that your diabetes is out of control or that you are getting sick.<sup>1</sup>

DKA usually develops slowly. But when vomiting occurs, this life-threatening condition can develop in a few hours<sup>1</sup>

## What Causes DKA?<sup>1</sup>

Here are **three basic** reasons for moderate or large amounts of ketones:

1. **Not enough insulin**  
Maybe you did not inject enough insulin. Or your body could need more insulin than usual because of illness.
2. **Not enough food**  
When you're sick, you often don't feel like eating, sometimes resulting in high ketone levels. High levels may also occur when you miss a meal.
3. **Insulin reaction (low blood glucose)**  
If testing shows high ketone levels in the morning, you may have had an insulin reaction while asleep.
4. **Some of Anti-Diabetic Medications:**  
There are some of anti-diabetic medications cause DKA with rare incidence, eg. SGLT2 inhibitor medications.

## Warning signs of DKA<sup>1</sup>

Early signs	Thirst or a very dry mouth
	Frequent urination
	High blood glucose levels
	High levels of ketones in the urine
	Constantly feeling tired
Later signs	Dry or flushed skin
	Nausea, vomiting, or abdominal pain (Vomiting can be caused by many illnesses, not just ketoacidosis. If vomiting continues for more than 2 hours, contact your health care provider.)
	Difficulty breathing
	Fruity odor on breath
	A hard time paying attention, or confusion

### Reporting of side effects:

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in the package leaflet.

### Saudi Arabia:

The National Pharmacovigilance Centre (NPC)

Toll free phone: 8002490000

By email: [npc.drug@sfda.gov.sa](mailto:npc.drug@sfda.gov.sa)

Or by fax: +966 11 2057662

Or by online: <https://ade.sfda.gov.sa/>

### **Astrazeneca Pharmacovigilance center:**

Phone: +966 11 2249235

Email: [ksa.ae@astrazeneca.com](mailto:ksa.ae@astrazeneca.com)

## Warning<sup>1</sup>



**Ketoacidosis (DKA) is dangerous and serious. If you have any of the above symptoms, contact your health care provider IMMEDIATELY, or go to the nearest hospital emergency room.**

**High levels of ketones can poison the body.** When levels get too high, you can develop DKA. DKA may happen to anyone with diabetes, though it is rare in people with type 2.

Treatment for DKA usually takes place in the hospital. But you can help prevent it by learning the warning signs and checking your urine and blood regularly.

### How Do I Check for Ketones?<sup>1</sup>

You can detect ketones with a simple urine test using a test strip, similar to a blood testing strip.

Ask your health care provider when and how you should test for ketones. Many experts advise to check your urine for ketones when your blood glucose is more than 240 mg/dl

When you are ill (when you have a cold or the flu, for example), check for ketones every 4 to 6 hours. And check every 4 to 6 hours when your blood glucose is more than 240 mg/dl.

Also, check for ketones when you have any symptoms of DKA.

### What If I Find Higher-than-normal Levels of Ketones?<sup>1</sup>

If your health care provider has not told you what levels of ketones are dangerous, then call when you find moderate amounts after more than one test. Often, your health care provider can tell you what to do over the phone.

**Call your health care provider at once if you experience the following conditions:**

- Your urine tests show high levels of ketones.
- Your urine tests show high levels of ketones and your blood glucose level is high.
- Your urine tests show high levels of ketones and you have vomited more than twice in four hours.

**Do NOT exercise** when your urine tests show ketones and your blood glucose is high. High levels of ketones and high blood glucose levels can mean your diabetes is out of control. Check with your health care provider about how to handle this situation

### How to reduce the risk of DKA and manage your diabetes during illness<sup>2</sup>

- Always keep a copy of sick day rules for reference for when you are unwell.
- Ensure you have a reliable blood glucose meter and 'in date' test strips.
- Keep supplies of new (unopened) ketone urine testing strips for use during illness.

#### References,

1- DKA (Ketoacidosis) & Ketones. American diabetes Association. Available at: <http://www.diabetes.org/living-with-diabetes/complications/ketoacidosis-dka.html> Last Reviewed: August 21, 2013 Last Edited: March 18, 2015"

2- Diabetic Ketoacidosis. Available at: <http://www.mayoclinic.org/diseases-conditions/diabetic-ketoacidosis/basics/symptoms/con-20026470>