

Preventing Diabetic Ketoacidosis (DKA)

What is DKA? Diabetic Ketoacidosis (DKA) is a serious condition in which there is a buildup of ketones in the blood. Ketones are acids produced by the body when the body is breaking down fat for energy, due to lack of insulin. The buildup of ketones in the blood is called ketoacidosis.

If it is not treated right away, ketoacidosis can lead to coma or even death. DKA occurs more often in people with type 1 diabetes but it can also be seen in individuals with type 2 during illness or after they have become insulin deficient.

What are the causes of DKA?

- Missing doses of insulin
- Insulin has spoiled due to heat or cold or contamination
- Illness (flu), stress and infections that cause high blood sugar and an increased need for more insulin

Signs and symptoms of DKA

- Nausea
- Vomiting
- Frequent urination
- Thirst
- Fruity smelling breath (ketones cause this)
- Fatigue
- Rapid breathing, shortness of breath
- Flu like symptoms

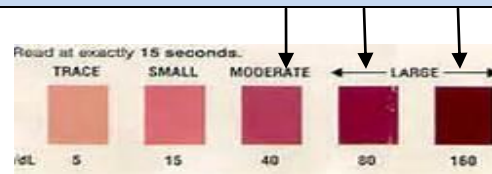


When should you check for ketones?

- If you have Type 1 diabetes and your blood sugar is over 240mg./dl
- If you have any type of diabetes and are sick or your blood glucose is over 240mg./dl
- You do not feel well, even if your blood sugar is in the normal range

Ketones can be checked in the urine with a simple urine test. There are many products available for ketone testing. They can be purchased without a prescription at the pharmacy.

What to do if you have positive ketones in your urine (moderate or high) and your blood sugar is over 250:



- 1. Take your insulin correction dose by syringe every 2-3 hours until your blood sugar returns to your target level.**
 - Continue to check your ketones every hour.
 - Drink at least 8 ounces of water, broth or sugar free beverage every hour to avoid dehydration.
 - If you have positive (moderate or large) ketones but your blood sugar is under 200, continue taking your insulin correction dose every 3 hours, but drink liquids containing carbohydrates (juice, sports drinks, regular soda) instead of sugar free.
 - Continue to check blood sugar and ketones until ketones are negative. Call you doctor if you have questions.
- 2. Call your doctor immediately if your blood sugar and ketones are not decreasing, if you are unable to drink fluids or if you are vomiting or have diarrhea.**
- 3. Some milder cases of DKA can be treated at home without hospitalization or an emergency room visit if the patient can still drink and keep fluids down, can check their blood glucose and ketones at home, and can get medical advice from their healthcare provider over the phone.**
- 4. Hospitalization may be required for appropriate treatment of DKA that is moderate or severe. Treatment always requires rehydration with supplemental fluids first, followed by additional insulin to restore normal glucose metabolism and correction of electrolytes, if needed.**