

Preventing eDKA After Taking SGLT2 Inhibitors Before Surgery

SGLT2 inhibitors are non-insulin medications used to treat diabetes. Some examples of these medications include: canagliflozin (Invokana®), dapagliflozin (Farxiga®), empagliflozin (Jardiance®), bexagliflozin (Brenzavvy®), and ertrugliflozin (Steglatro®).

Usually, your surgery team will tell you to **stop taking SGLT2 inhibitors 3-4 days before your surgery.**

What is euglycemic diabetic ketoacidosis (eDKA)?

- If you have surgery and you forget to stop taking your SGLT2 inhibitors, you are at risk for something called **eDKA**, or **euglycemic diabetic ketoacidosis**. eDKA is a rare but serious condition that can occur when the body makes a type of chemical called **ketones**. Too many ketones can cause your blood to become acidic. This can be life-threatening.
- After surgery, your body may feel stressed. This stress response can raise certain hormones (chemicals) in your body that tell your liver to make ketones. If you took SGLT2 inhibitors, they can make it harder for your body to get rid of these ketones, which can cause eDKA.

How can I prevent eDKA?

While eDKA is rare, you can lower your risk of eDKA by doing the following:

- **Stay hydrated:** Drink plenty of fluids, especially after surgery. If your doctor has placed you on a fluid restriction, ask them how much fluid you should be drinking.
- **Check your blood sugar:** If you have diabetes, regularly check your blood

sugar levels as instructed by your healthcare provider. However, it is important to note that eDKA can occur even if your blood sugar is in a normal range.

- If you do not have diabetes, you do not need to check your blood sugar.
- **Eat food when you can:** Usually, we will tell you to start taking your SGLT2 inhibitor medication again after surgery when you are able to eat. However, if you are nauseous and unable to eat after surgery, don't start taking your SGLT2 inhibitor yet. Ask your doctor when it is safe to take it again.
- **Watch for early warning signs of eDKA:** If you have any of the signs or symptoms of eDKA that are listed below, call your doctor or healthcare provider.

What are some signs and symptoms of eDKA to watch for?

- Nausea, vomiting, or abdominal (stomach) pain
- Being really thirsty or having a dry mouth
- Peeing often
- Fast breathing or shortness of breath
- Fatigue (tiredness), weakness, or confusion
- Your breath smells “fruity”
- Changes in appetite (like not feeling hungry or not wanting to eat)

What should I do if I have possible symptoms of eDKA?

If you notice any of these signs and symptoms, contact your healthcare provider or go to the nearest emergency room. **Be sure to tell them that you are taking an SGLT2 inhibitor and you have recently had surgery.** This information is important for your doctors to treat you and manage eDKA.

Disclaimer: This document contains information and/or instructional materials developed by University of Michigan (U-M) Health for the typical patient with your condition. It may include links to online content that was not created by U-M Health and for which U-M Health does not assume responsibility. It does not replace medical advice from your health care provider because your experience may differ from that of the typical patient. Talk to your health care provider if you have any questions about this document, your condition, or your treatment plan.

Authors: Christine Hagar, MS RDN CDCES, Emily Weatherup, MS RDN CDCES, Firdhous Abdul Kather, MD, Lynn Ang, MD, Jennifer Iyengar, MD, Nazanene H. Esfandiari, MD, Sima Saberi, MD

Edited by: Brittany Batell, MPH MSW

Patient Education by [U-M Health](#) is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Public License](#). Last revised 02/2024