

## DKA Prevention in Insulin Pump: Practice Cases #1

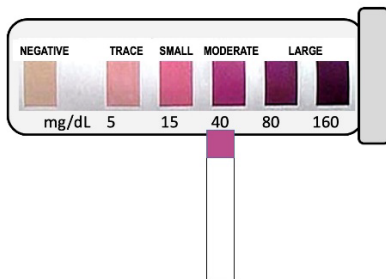
---

Switching from daily injections to insulin pump therapy comes with a new risk for Diabetic Ketoacidosis (DKA). Insulin pumps do not use long-acting insulin. Instead, they release tiny amounts of rapid insulin every few minutes (or less) or bigger amounts manually when you bolus for food. If something stops the insulin from being delivered or absorbed, the risk of DKA goes up quickly. DKA left untreated can lead to hospitalization, or even death.

To keep you safe on your pump, your educator will discuss DKA prevention with you - often. Please answer how you'd manage these examples below as if you were on a pump (if you aren't already). This is designed to give you practice for when "things just happen." Discuss your plans with your educator.

### Questions:

- Suppose you're planning to exercise. Your glucose is 16.6 mmol/L so you checked for ketones. Your result is below. (One is blood ketones. One is urine. You only need to look at whichever one you'd be using.)



### QUESTIONS:

- To lower your glucose reading, would you decide to exercise, give insulin or both?
  - If you decided to give insulin, how many units would you give? And how?
  - Is there anything else you'd consider doing?
- Suppose you were 5.6 mmol/L at lunch and bolused for a normal meal. Two hours after eating, the glucose was 13 mmol/L. You gave a bit of a correction according to your pump's suggestion. However, an hour after that you are now 19.6 mmol/L. Your ketones are negative. What would you do to keep yourself safe?
  - You are driving from Edmonton to Calgary. You are just over 2 hr from home. Your pump has a malfunction alarm and stops delivering insulin. What would you do to keep yourself safe?