

# Temporarily Removing Your Insulin Pump

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There may be times when you would like to remove your insulin pump for short periods of time. Examples include going to the beach, a lost, stolen, or damaged pump, a shortage of supplies while away, or inability to operate your pump short term due to hospitalization or medical procedures. It is important to continue to manage your blood sugars while you are not wearing your pump. When your pump is disconnected it is important to stay as close to your basal-bolus routine as possible. You will need to give insulin by pen or syringe during this time to prevent high blood sugars and diabetic ketoacidosis (DKA). Extra blood sugar monitoring is needed, including overnight tests to assess how the new plan is working for you. If it is not working for you or you need additional help please contact your diabetes educator.

## Removal for less than 24 hours:

When removing your pump for less than 24 hours you will need to give rapid-acting insulin injections every 3-4 hours. The dose given needs to be equal to:

- 3-4 hours of basal insulin unless long-acting insulin has been taken

### PLUS

- Pre-meal insulin bolus based on carbohydrate intake

### PLUS

- Correction bolus if needed

### Example:

At 7:30 am your blood sugar is 10 mmol/L and you eat 30g of carbohydrate at breakfast. Your insulin:carb ratio is 1 unit for every 15g of carbs and your correction factor (sensitivity factor) is 2.0. The basal rate from your insulin pump that normally runs from 7:00am – 4:00pm is 1.0 unit per hour.

- 3 hours of basal insulin =  $1 \times 3.0 = 3$  units of rapid insulin
- Food bolus =  $30\text{g}/15 = 2$  units of rapid insulin
- Correction bolus =  $(10\text{mmol/l} - 6 \text{ mmol/l or your target})/2 = 2$  units of rapid insulin

The total rapid insulin to be given at 7:00 am before breakfast is 7 units (3 + 2 + 2) and another dose will be needed in about 3-4 hours prior to your next meal.

## Removal for 24 hours or longer:

There are 2 options when you are planning to be off your pump for more than 24 hours.

1. Give long-acting insulin to replace basal rate and rapid-acting insulin for mealtime boluses.
2. If long-acting insulin is not available you will need to give rapid-acting insulin every 3-4 hours **including overnight** as shown in the section above.

To calculate the amount of long-acting insulin you will need, add up the total daily basal amount of insulin currently provided by your pump and take this as one dose at bedtime each night.

### Example:

Current basal rates set in pump are as follows:

- 12:00am- 4:00pm 1.0 units per hour
- 4:00pm – 12:00 am 1.2 units per hour

Your total daily basal insulin amount is:

- 16 hours x 1.0 unit per hour = 16 units
- 8 hours x 1.2 units per hour = 9.6 units

Total long-acting insulin to be given at bedtime each night is 26 units (16 + 9.6 = 25.6).

### **Going back on the Pump:**

When you are ready to go back on your pump remember that you should not resume your basal rate until 22-24 hours after your last injected dose of long-acting insulin. If you would like to reconnect your pump earlier to give food and correction boluses, set a temporary basal rate of 0 units per hour until it has been 22-24 hours since your last injection of long-acting insulin. If you have both pump basal insulin and injected long-acting insulin working at the same time, **severe** hypoglycemia can result.

### **Things to Remember:**

- Extra blood sugar testing will be needed to make sure your adjustments are working
- Insulin may need to be decreased for activity
- Check for ketones when your blood sugar is above 14 mmol/L
- **Always** carry an insulin pen or syringes with rapid-acting insulin
- Keep long-acting insulin at home and always take it with you when travelling
- Be able to insert your infusion set manually in case your inserter is lost or forgotten