Insulin Pumps: Managing high blood glucose

An insulin pump can help you keep your blood glucose stable. But you can still have periods of high blood glucose when using a pump. This sheet will help you know what to do if this happens.

Step 1: Look for simple solutions
Did you forget your insulin bolus, or not take enough insulin with your last meal? If no, check for:

- Kinks in the tubing
- Leaks in the tubing
- Poor connections
- Sediment in the insulin
- Infection at the insertion site

Step 2: Give a correction dose
Check your blood glucose. Give a correction dose using your pump. Check your blood glucose in 2 to 3 hours. If it hasn’t gone down, check for ketones and give a correction dose with a syringe or injection pen. Then, change your infusion set, even if you’ve just changed it recently. If you have moderate or large ketones, follow your sick-day instructions.

Step 3: Troubleshoot technical issues
If you are having technical problems or your pump isn’t working, call the 800 number on the back of your pump for help.

Step 4: Take off your pump
If your pump is not working or needs to be repaired, take it off. Use the same long- and short-acting insulin that you used before you got the pump. Use the information on the back of this page to figure your insulin.

Do you know your settings?

Write down the current settings from your pump in the spaces below. Keep this sheet in a place where you can easily find it. You may not be able to get this information if your pump stops working. However, if you upload the information from your pump on a regular basis, you may be able to find this information on your computer.

Basal rates:
Total 24-hour basal amount (______) = long-acting insulin amount
At _________ give _________ units per hour
At _________ give _________ units per hour
At _________ give _________ units per hour
At _________ give _________ units per hour

Insulin-to-carb ratio:
At _________ I need _________ unit(s) for every _____ grams of carbs.
At _________ I need _________ unit(s) for every _____ grams of carbs.

Correction / sensitivity factor:
At _________ I need _________ unit(s) for every _____ mg/dL above target.
At _________ I need _________ unit(s) for every_____ mg/dL above target.
### Step 5: Stay on target
- Check your blood glucose every 2 to 3 hours.
- Use the same insulin-to-carb ratios and correction (sensitivity) factors as you do with your pump.
- Check for ketones if your blood glucose goes above 240 mg/dL twice in a row.
- Correct any high blood glucose readings using your normal ratio.

**My target blood glucose levels:**
- Fasting: _____________
- Daytime: _____________
- Bedtime: _____________

### Step 6: Starting a replacement pump
- Don’t start using your new pump until 24 hours (1 day) after your last dose of long-acting insulin. (Or, use a temporary basal rate of 0% until your long-acting insulin wears off. Then, start basal insulin again.)
- Change your infusion set every 3 days.
- Keep an active prescription for long-acting insulin AND syringes at your regular pharmacy.
- Keep an emergency syringe with you at all times. If you have a problem with your pump, you can use the syringe to take insulin out of the pump for an emergency injection.
- Contact your provider for new pump settings if you’ve been off your pump for more than a month.

### Dosing insulin without the pump
Use your short-acting insulin for all meal and correction doses: ____________________________.

Your long-acting insulin (______________) replaces the basal rate from your pump. Use the table below to figure the amount of long-acting insulin you need. Long-acting insulin can be taken at any time of day, but most people take it at breakfast or at bedtime. Try to take it around the same time each day. You can inject it with a syringe or pen.

#### EXAMPLE

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Units per Hour</th>
<th>Total Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 AM–3 AM (3 hours)</td>
<td>0.4</td>
<td>1.2</td>
</tr>
<tr>
<td>3 AM–7 AM (4 hours)</td>
<td>0.6</td>
<td>2.4</td>
</tr>
<tr>
<td>7 AM–12 AM (17 hours)</td>
<td>0.6</td>
<td>10.2</td>
</tr>
</tbody>
</table>

1.2 + 2.4 + 10.2 = 13.8 units
Give 14 units of long-acting insulin.

#### My Long-Acting Insulin

<table>
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_______ + _______ + _______ = _______

I need ________ units of long-acting insulin.

If you have any questions, call your diabetes management provider at: ________________.