

Insulin pump troubleshooting and pump malfunction

If your insulin pump is not working properly it is important not to panic.

If you believe that your pump has malfunctioned, stop and go through the troubleshooting checklist below to identify if the problem can be resolved.

Always manage your high blood glucose levels (as per the *Managing hyperglycaemia and/or sick-days on an insulin pump* fact sheet) BEFORE proceeding.

Troubleshooting checklist

- ✓ Check tubing for air bubbles.
- ✓ Is your infusion set connected to the insulin cartridge?
- ✓ Can you see or smell insulin leaking?
- ✓ Can you feel moisture on the pump casing or at the insertion site?
- ✓ Has your set been changed within the last 72 hours?
- ✓ Is your insertion site red, sore or swollen?
- ✓ Did you take your last bolus? Was it actually delivered?
- ✓ Are you in the correct basal program?
- ✓ Is the date and time on your pump correct?
- ✓ If you recently changed your set, did you fill the cannula?
- ✓ Is your insulin in date and been appropriately stored?

If you identify a pump issue that can be resolved, you should **address this and continue on your pump.**

Pump malfunction

Manage your hyperglycaemia first and then report the malfunction to your pump company:

Medtronic: 1800 777 808

AMSL: 1300 851 056

Roche: (02) 9860 2100

Ypsomed: 1800 447 042

If you have had a new pump within the last 4 years, the company will generally arrange a replacement pump for you within 24–48 hours.

You may require assistance from a diabetes educator to add your settings into your replacement pump. You should always keep a copy of your current rates and ratios in the event of a malfunction.

If you have returned to insulin pen injections, including basal (long-acting) insulin, you will need to allow for this long acting insulin when reconnecting to your pump. Speak to your physician or diabetes educator about this.

Returning to insulin pen injections following an insulin pump malfunction

You should always have a **current prescription** of your previous basal (long-acting) insulin. Work out your doses of basal (long-acting) and bolus (rapid-acting) insulin, as follows:

- Refer to your pump's '**Total Daily Dose**'.

You can find this on your pump (*Daily Totals* or *history* menu) or on a previous download, in the event that your pump is not working at all.

Divide your pump total daily dose into 2.

- **Basal**
One half is your basal insulin and can be given as a single dose **OR** as a split dose ($\frac{1}{2}$ in morning and $\frac{1}{2}$ at night).
- **Bolus**
The other half is your bolus insulin for meals and corrections.
- **Continue to carbohydrate count and use your:**
Insulin: Carbohydrate ratio (ICR) for meals and insulin sensitivity factor (ISF) to correct high BGLs.
OR
If this is not possible, simply divide this half into 3 doses (breakfast, lunch and dinner) and take before meals.

Example

- Total Daily Dose = 48 units
- Divide by 2 = 24 units.

This means:

- 24 units of Basal insulin (Lantus or Levemir) +
24 units of Bolus insulin (Novorapid or Humalog or Apidra or Fiasp).

Bolus insulin can be taken as:

- 8 units per meal (24 divided by 3 = 8 units) **OR**
use your insulin to carb ratio and insulin sensitivity factor