



WRB Diabetes Education Pump Back Up Plan

Name:

DOB:

In the event of an insulin pump malfunction, please follow these instructions.

**Pump Set Change Precautions:** Always be aware of your Blood Glucose (BG) trends. When placing a new cannula, pick a time early in the day so you can monitor your BG. This will reassure you that the tubing and/or the insertion set is not kinked, leaking or blocked. If there was a problem with the flow of insulin, it may take several hours for the pump to alarm or it may not alarm at all. Check your BG at regular intervals in the hours after a change. Do not go to bed right after a set change. Watch your BG and/or CGM device throughout the day to make sure there are no trends caused by lack of insulin.

**What Next?:** If you notice BG readings above 300mg/dL twice in 2 hours after a bolus insulin (correction) and it continues to rise, suspect a pump set failure. Check ketones. Common causes are listed on side 2.

**When do we suspect pump set or pump failure?:**

- You have symptoms of high BG. Examples: thirsty, frequent urination, tired, fruity breath, stomach aches.
- If the ketones are positive
- If high BG results continue even after correction

**Act fast:** Stop the pump, and give the Novolog correction factor by using your insulin pen or syringe/vial. Change the insulin pump cannula, tubing and resume your basal rate. Continue to check your BG at 30 minutes and then hourly until you are sure the infusion set is working properly and the BG results stay under 300mg/dL.

**Pump Back Up Plan:** In case you are not certain the pump or tubing is working correctly, use this plan.

- Contact the insulin pump company representative to troubleshoot the problems. (Help numbers are on the back of the pump device)
- Stop the pump and disconnect the tubing and insertion set.
- If you will be off the pump for more than 1-2 hours without a basal rate, you must correct with Novolog or switch to a long acting insulin plan.
- Option 1: Correct using Novolog pen or syringe/vial with the insulin sensitivity factor (correction) every 3 hours. Use Novolog injections for your carbohydrate ratio with meals.
- Option 2: Use long-acting insulin plan (Lantus) after pump stops. **Your Dose:** \_\_\_\_\_ units Lantus once per day. Use Novolog injections for your correction factor and carb coverage at meals.
- When using Lantus, don't restart your usual pump basal rate on that day. This will cause low BG. Ask us for help transitioning back to the pump when ready.
- Be careful about high or low BG results during these changes in insulin therapy. Recheck ketones. Follow the sick day ketone plan and increase drinking of un-sweetened fluids. Carry fast-acting carb choices like glucose tabs.
- Contact the Diabetes Educator or the Pediatric Endocrine Doctor On-Call (202-713-3321)
- Ask about updating your insulin back up plan at every routine visit. Check your Lantus expiration dates and keep refills refrigerated. Replace an opened vial/pen every 28 days.

**Staff Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Patient/Parent Signature:** \_\_\_\_\_

**Diabetes Education Contact Information:**

Traci Carter, MA RN CDE

Office: 301-295-5068 or [traci.m.carter.civ@mail.mil](mailto:traci.m.carter.civ@mail.mil) or register on [RelayHealth.com](http://RelayHealth.com)

Pediatric Endocrine Doctor (on-call for urgent questions): **202-713-3321**

Pump Back Up Plan Side Two

Common Causes of Insulin Pump Malfunction:

- Loose connections
- Kinked or clogged cannula
- Air bubbles in tubing. Tubing that was not correctly primed.
- Cracked tubing
- Dislodged infusion set or cannula came out of skin
- Ineffective infusion site. Scarred skin or lipohypertrophy (fatty scars under the skin won't absorb well).
- Site irritation or infection
- Empty insulin reservoir
- Expired insulin or insulin that went bad due to heat or freezing
- Incorrect bolus doses or settings
- Missed bolus doses (check pump memory)
- Incorrect basal rate settings
- Pump was left in suspend mode for more than 2 hours
- Old batteries
- Pump malfunction (specific pump company technician can troubleshoot if replacement is needed)

Reference: Boldermann, Karen. "Putting Your Patients on the Pump". 2<sup>nd</sup> Ed. 2013.

Consider purchasing: Chase, Peter, MD & Laurel Messer, RN. "Understanding Insulin Pumps & Continuous Glucose Monitors". Children's Diabetes Foundation at Denver, CO.

Keep track of your current Novolog settings. Write in Pencil. Take a picture.



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**Dosing**                      **Time Segments**                      **Units**                      **Target BG**

Carb Ratios:

Correction Factors: