



ENDOCRINOLOGY & DIABETES UNIT

Diabetes Clinic: 604-875-2868

Toll-free Phone: 1-888-300-3088, x2868

Fax: 604-875-3231

E-mail: dcnurse@cw.bc.ca

<http://endodiab.bcchildrens.ca>

INSULIN PUMP DISCHARGE INSTRUCTIONS

For: _____ Date: _____

Basal Rate(s):	start time	rate (U/h)
	_____	_____
	_____	_____

Blood Sugars:

Check blood glucose before meals, 2 hours after meals, at bedtime, midnight and 3 AM. Once basal rates are set, this can usually be decreased to a minimum of 6 times per day (including overnight blood glucose levels twice a month). Also check within 2 hours of a site change or correction bolus.

Target Blood Sugars:

- before meals: _____ mmol/L
- 2 hours after meals: _____ mmol/L
- bedtime and overnight: _____ mmol/L

Insulin-to-Carbohydrate Ratio:

- 1 U of rapid-acting insulin (Humalog®, NovoRapid® or Apidra®) for every _____ grams of carbohydrate.
- **No snacks after 8 PM** for the first 1-2 weeks on the pump. Limit daytime snacks to 2.
- Stick to low-fat foods with well-known carbohydrate counts initially.
- Do not bolus for less than _____ grams of carbohydrate.

Insulin Sensitivity Factor (ISF) or Correction Factor:

- 1 U of rapid-acting insulin will lower blood glucose by approximately _____ mmol/L.

Correction Formulas:

- Daytime: $\frac{\text{blood glucose} - \text{target}}{\text{ISF}}$ Bedtime/Overnight: $\frac{\text{blood glucose} - \text{target}}{\text{ISF}}$
- Use the correction formula if blood glucose is above target.
- The pump will subtract unused insulin from previous corrections.
- **For the first week only**, correct the 3-AM blood glucose only if it's above 15 mmol/L.
- If blood glucose is less than 4 mmol/L give 5-15 grams fast-acting carbohydrate and recheck the blood glucose in 15 minutes. For lows due to exercise, you can consider following with a starch and protein. Be careful not to over-treat lows.

- Check blood glucose before driving. **If blood glucose is under 5 mmol/L, don't drive!**

Adjusting for Activity:

- No intense or "unusual" activities for the first 2 weeks on the pump.
- The pump can **only** be disconnected for up to 1½ hours. It is best to keep the pump on and set a temporary basal rate (TBR) that is reduced by 30-50% of normal. To prevent post-exercise lows, set a TBR for 4-6 hours during and after strenuous or long-lasting activity or activity later in the day.
- For activity within 1 hour of a meal or snack, the bolus can also be decreased by 30-50%.
- For long-lasting activity (skiing, snowboarding, hiking), set a TBR that is 50% of normal for the entire time of the activity, plus a few extra hours afterwards to prevent delayed lows.
- Shopping, housework, yardwork and vacationing are activity, too!
- For decreased activity, an increased TBR can be set.

For Managing High Blood Sugars, Ketones, and Sick days:

- Please refer to our handout *[Insulin Pumper's Guide to Managing High Blood Sugars and Preventing DKA](#)*.

Infusion Site Care:

- Change infusion sets every 2-3 days.
- Change site before a meal or snack, and check blood glucose within 2 hours to make sure it's working. Do not plan to change the infusion set before bed.
- If the site is painful, red, or swollen, change it! Do not wait!

Supplies:

- Always carry an insulin pen or syringes and rapid-acting insulin with you!
- Change this insulin every month.
- Always carry fast-acting sugar to treat low blood glucose!
- Have extra batteries available. Keep some at school and wherever else you hang out.
- Always have extra supplies available.
- Keep an unopened vial of long-acting insulin in the fridge in case you need to be off your pump. Refer to our handout *[Insulin Pump Temporary Removal Guidelines](#)*.

Upload the pump data every week and look at the reports. Always upload the pump at home before you come to your diabetes clinic appointment. The A1C blood test needs to be done every 3 months.

Complete *[Insulin Dose Adjustment Module 7: Insulin Pump Therapy](#)* and refer to it regularly as needed: <http://learn.phsa.ca/BCCH/Insulin/module7a/>.

For pump and infusion-set problems or questions, call the 24-hour phone number, found on the back of your pump.

Note: If using the pump results in frequent lows, ketoacidosis, or continued poor blood glucose management (A1C greater than 9.0%), we will recommend a break from pump therapy.