

# patient education program

8200 Dodge Street Omaha, NE 68114-4113 402-955-5400 ChildrensOmaha.org

## Pattern Control for Insulin Pumpers

**Pattern control** is used to help you make good decisions about insulin changes. The fact is, there is no perfect insulin dose. The amount of insulin you need is always changing. This means you will need to make changes to insulin doses often. Please be prepared to make insulin changes on your own using these guidelines.

### Steps:

1. Know your child's target range

Age	Daytime	Bedtime/Overnight	Correction Target
Younger than 5 years	80-180	100-180	150
5 years and older	70-150	90-150	120

2. Test the blood sugar 8 times per day (to include Midnight and 3 am when needed) for 2-3 days and write in a logbook.

3. Look for patterns.

- Look for a pattern of low or high blood sugars at a particular time of the day or night
- Look at before meals or night blood sugars to adjust basal rates
- Look at 2-3 hour after meal blood sugars to adjust bolus amounts

4. Figure out which insulin is causing the problem and make the change.

- Give less insulin to fix low blood sugars; give more insulin to fix high blood sugars.
- An effective change is increasing or decreasing the dose by 10%. See chart

If Bolus dose is

Less than 10 units = change by ½ unit  
 10-14 units = change by 1 unit  
 15-24 = change by 2 units  
 25-34 = change by 3 units  
 35-44 = change by 4 units

If Basal rate is:

Less than 0.5 = change by 0.05 units  
 0.5-2.0 = change by 0.1 unit  
 Greater than 2.0 = change by 0.2 unit

- Do not change two doses at once because it is harder to figure out which change was effective. More than one change is appropriate if there are low blood sugars.

5. Reassess by continuing to test the blood sugar 8 times per 2-3 days to include Midnight and 3:00a.m. when needed. Make another change if needed.

- Give the change time to work. Wait 2-3 days for insulin changes made for high blood sugars.
- If low blood sugars occur, you may lower the insulin each day until blood sugars are in a normal range. Do not wait the usual 2-3 days.
- Insulin and infusion sites/sets need to be changed every 2-3 days. You may have to change them more often if having high blood sugars that are not coming down with insulin boluses.

### Remember:

- Call the Diabetes team if blood sugars are worse after making a change in the insulin dose or if you make more than 3 changes in the dose since the last clinic visit.
- Call the Diabetes team if your child has small, moderate, or large ketones.