

Guidelines for Basal Rate Checking

The basal settings in an insulin pump attempt to provide background insulin similar to the pancreas in a person without diabetes. Basal rate insulin is supposed to provide enough insulin for the body's needs aside from the insulin needed for food. Basal rates are not the same all day, they vary at different times of the day. Basal rate checking helps determine if more or less insulin is needed at different times of the day.

Important points before starting:

- Basal Rate Testing is most useful when performed 2 or 3 times prior to making adjustments
- Basal Rate Testing should be done when there have been no unusual circumstances in the last 24 hours:
 - No significant high or low blood sugars
 - No unusual exercise, activity or stress
 - No illness
- It is usually best to do overnight testing first.
- The blood sugar should be between 90-250 for the test.
- **If you have a low blood sugar during the testing, treat and stop the test.**
- **If your blood sugar rises above 250, stop the test and do a correction bolus.**
- Wait approximately 4 hours after the last bolus and meal/snack. The meal should be fairly low in fat to avoid a delayed blood sugar rise.
- Stay connected to the pump during the test.
- If the blood sugar doesn't fluctuate more than 30-40 points during the test, the basal settings are fine. If the blood sugar **rises** more than 40 points during the test, more basal insulin may be needed during this time period. If the blood sugar **drops** more than 40 points during the test, less basal insulin may be needed during this time period.

Overnight Basal Checking:

1. Check blood sugar 4 hours after last bolus (dinner) and if blood sugar is between 90-250 start the test. If blood sugar is under 70, treat the low and stop the test. If blood sugar is over 250, stop the test and bolus for the high blood sugar. Try again on another night.
2. Check blood sugar every couple of hours until the next mealtime, i.e. 11pm, 2am, 4-5am and 6-7am.
3. If at any time the blood sugar goes below 70, treat and stop the test or if blood sugar goes over 250, give a correction and try again another night.

Daytime Basal Checking:

It is best to think of the day in parts:

- Morning to Lunch
- Lunch to Dinner
- Dinner to Bedtime

Morning to Lunch

1. Check your blood sugar upon waking. If it is 90-250 proceed with the basal test.
2. Eat a 'no carbohydrate' breakfast and do not eat or drink anything with carbohydrates until lunchtime.
3. Check your blood sugar every 1-2 hours until dinner.
4. Eat lunch.

Lunch to Dinner

1. If it has been 4 hours since breakfast and your last insulin dose, check your blood sugar and if it is 90-250 go ahead and start the basal test.
2. Eat a 'no carbohydrate' lunch and do not eat or drink anything with carbohydrates until dinnertime.
3. Check your blood sugar every 1-2 hours until dinner.
4. Eat dinner.

Dinner to Bedtime

1. If it has been 4 hours since lunch and your last insulin dose, check your blood sugar and if it is 90-250 go ahead and do the basal test.
2. Eat a 'no carbohydrate' dinner and do not eat or drink anything with carbohydrates until bedtime.
3. Check your blood sugar every 1-2 hours until bedtime.
4. Eat a snack, if desired, at the end of the basal test.

'No carbohydrate' meal ideas

- Breakfast: Ham or sausage and eggs; tofu scramble with eggs; cottage cheese.
- Lunch: Salad with lettuce, avocado, chopped chicken or ham, olives, shredded cheese.
- Dinner: Breakfast dinner; meat/chicken/fish with leafy green salad plus celery, cucumbers, mushrooms and broth.
- Dessert: Ricotta cheese with sugar substitute.