

How to Check My Basal Rates

For patients with diabetes using an insulin pump

What are basal rates?

Basal rates are the amount of hourly insulin your body needs between eating meals.

Your basal rates may need to change:

- If your lifestyle changes
- If your weight changes
- As the seasons change
- For different times of the day

How do I check if my basal rates are correct?

1. Choose the time that you would like to check. The overnight basal is a common one to start with.
2. Check your blood sugar at the time you start to test your basal rate.
3. Your blood sugar must be between 4 and 10 mmol/L to start.
4. Check your blood sugar every 2 to 4 hours if you do not have continuous glucose monitoring or a flash meter.

Important!

- Do NOT eat or drink carbohydrates for 4 hours before or during the test.
- Do NOT do vigorous exercise before or during the test.
- Do NOT eat a high protein or fat meal before the test.
- Do NOT take bolus insulin during the test.
- Do NOT drink alcohol on the day of the test.

Your basal rate is correct if your blood sugar does not change more than 1.7 mmol/L from the previous blood sugar test.



Stop the test if: You have a blood sugar level higher than 12 mmol/L, or
You have a blood sugar level below 4 mmol/L and treat the low blood sugar



Adjusting my basal rates:

If your blood sugar level increases more than 1.7 mmol/L from the previous blood sugar test, your basal rate needs to increase. Increase the basal rate 2 to 3 hours before you see the rise in blood sugar.

If your blood sugar level decreases more than 1.7 mmol/L from the previous blood sugar test, your basal rate needs to decrease. Decrease the basal rate 2 to 3 hours before you see the decrease in blood sugar.

How much of a change should there be in my basal rate?

The amount of change in your basal rate depends on your what your basal rate is and the amount of change you saw in your blood sugar during the test period.

Here is a guide to help you decide how much of a change to make.

If you are not sure, contact a member of your health care team.

The change in blood sugar	Your current basal rates		
	If less than 0.4 unit an hour	If between 0.4 to 1 unit an hour	If more than 1 unit an hour
More than 1.7 mmol/L	Change the basal rate by 0.025 to 0.05 unit an hour	Change the basal rate by 0.05 to 0.1 unit an hour	Change the basal rate by 0.1 to 0.2 unit an hour

Adapted from Scheiner, G. Think like a pancreas: a practical guide to managing diabetes with insulin. Philadelphia: Da Capo Press; 2011

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