

Basal Rate Testing

Children and Young Person's Diabetes Service

What is it and why do we do it?

Documenting blood sugar levels 2 hourly for a certain time period in a day without influences from food and bolus insulin and other factors, ascertains if your basal rates are set correctly. As children's bodies grow and develop, basal requirements change and therefore, basal rate testing should be completed several times a year.

Before you start, you need to check:

- BSL in target range 4-10mmol
- Not had recent correction
- Not had hypo in last eight hours
- Last food insulin 4 hours previous therefore no active insulin
- Last food was not high fat or low GI
- No strenuous activity in last 24 hours
- You are not sick or have other external factors that might influence
- You are not due a set change
- Your cannula site is free from lumps
- You are prepared to fast/ have carb free food and drinks for the time period

Basal rate testing times:

- Divide the day into different periods - Overnight, Morning, Afternoon, Evening.
- Only do one period at a time. Generally, start with overnight first.
- At the start of the test for each time period, check BSL and document or add notes on Libre.
- Continue to check 2 hourly until the time period has ended.
- Stop the test if you need a correction or have a hypo
- All food and drink consumed during the test period should be carb free
- **Re-do the time period test again before making any changes.**

Interpreting the results:

- If basal rates are correct then there should be no greater change than 2mmol/L
- If there is a rise of more than 2mmol/L then identify the time of the higher blood sugar and increase the basal by 1 to 2 increments two hours prior to this.
- If there is a decrease of more than 2mmol/L then identify the time the blood sugar was lower and decrease the basal by 1 to 2 increments two hours prior to this.

Test 1:

time	12pm	1am	2am	3am	4am	5am	6am	7am	8am	9am	10am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
current basal rate																								
mark when last had insulin and food																								
document BSL at start/end and every 2 hours of test																								

Test 2:

time	12pm	1am	2am	3am	4am	5am	6am	7am	8am	9am	10am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm
current basal rate																								
mark when last had insulin and food																								
document BSL at start/end and every 2 hours of test																								

Examples of carbohydrate-free foods:

Protein foods such as:

- eggs,
- cheese
- meat, chicken, fish, (no breadcrumb or batter coating)

Low carb vegetables such as:

- tomatoes
- green leafy vegetables
- cucumber
- courgettes
- sugar free drinks
- sugar-free jelly

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Reference: Medtronic resources

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Jeżeli chcemy, aby te informacje w innym języku, proszę zadzwonić 01932 723553

Se precisa de uma tradução por favor contacte: 01932 723553

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