**Checking Your Basal Rate**

Basal rates should be checked every 4-6 weeks and certainly every school holiday, to ensure the programmed basal rates are meeting the body’s requirements for background supply of insulin. The basal insulin dose will need to be increased as you grow and develop – the teenage growth spurt is a particularly important time.

Testing basal rates involves fasting (no intake of carbohydrate) for a period of time or if that is not possible, delaying eating for as long as possible. If the basal rate is right then the blood glucose should remain within the target range during this time. It is not a good idea to check the basal rates if you are unwell or have been doing a lot of exercise.

Don’t try to do the whole day at once. Get the overnight period right first and then breakfast to lunch, lunch to evening meal and lastly the evening meal until bed.

**General Rules When Testing Basal Rate**

1. Have your last meal 2 hours before the time period you will be testing, and avoid any low GI foods as they can continue to effect the blood glucose for several hours after eating eg pizza, pasta, curries.
2. If you are unable to omit a meal, delay it as long as possible.
3. Give your normal insulin bolus with your last meal.
4. Do not have any snacks or carbohydrate during the test.
5. Check BG levels every one to two hours during the test.
6. If BG level falls below 4mmol/L treat the hypo and abandon the test.
7. Avoid giving any correction boluses unless blood glucose is over 14mmol/L. If BG is over 14mmol/L, test for ketones. If ketones are present then you should take a correction dose and abandon the fasting test. If no ketones are present, **do not correct** and continue with the test.

**Overnight Basal Rate:**

Omit bed-time snack and fast overnight.

Check BG at 22.00/12.00/02.00/04.00/07.00

**Morning Basal Rate:**

Omit breakfast and fast until lunch time.

Check BG at 06.00/08.00/10.00/12.00

**Afternoon Basal Rate**:

Take breakfast before 10am. Fast until evening meal at 18.00.

Check BG at 12.00/14.00/16.00/18.00

**Evening Basal Rate:**

Have lunch before 14.00. Fast until 22.00 or **as late** as possible

(depending on age).

Check BG at 16.00/18.00/20.00/22.00

**What to do with the results**

**PLEASE NOTE: When new to insulin pump therapy, always discuss with your Diabetes Specialist Nurse before making adjustments.**

1. If blood (BG) stays within 2mmol/L, throughout the test period, then your basal rate is probably correct.
2. If BG level increases or decreases by more than 2mmol/L the basal rate will need to be adjusted depending on individual insulin sensitivity.
3. If you have to adjust the basal rate for a given period, always retest the next day to verify it.