

Patient information

Insulin Titration for People on a Basal Bolus Regime

Medical Directorate - Diabetes Centre

How does insulin work?

It is important to know how your insulin works in order to know how to adjust it to improve your diabetes control.

Breakfast Lunch Evening meal Bedtime Inject short-acting insulin short-acting insulin Inject short-acting insulin Inject short-acting insulin Inject longer-acting

The picture above demonstrates how your insulin works.

The yellow areas are your meal time insulin and the green area is your daily long acting insulin.

Your meal time insulin will begin to work within five to forty minutes and will last between three and six hours, depending on what insulin you take.

- Your breakfast insulin controls the blood glucose level before lunch.
- Your lunchtime insulin controls the blood glucose level before evening meal.
- Your evening meal insulin controls the blood glucose level before supper.
- Your supper/bed time insulin controls your blood glucose level over night and in the morning.

In brief, it is the insulin taken prior to testing your blood which controls that blood glucose level. You should aim for a blood glucose of between four and seven before meals.

How do I adjust my insulin dose?

	Before breakfast	Before Iunch	Before evening meal	Before supper
Mon	7.8	6.7	10.0	7.8
Tue	8.1	9.8	9.1	8.0
Wed	9.0	8.0	8.8	7.6
Thu	7.2	8.1	9.4	7.8
Fri	8.8	7.5	11.8	8.1
Sat	8.7	7.1	9.9	8.9
Sun	10.0	7.0	7.9	9.1

In the above example the blood glucose levels prior to evening meal are the highest.

Therefore, the insulin taken prior to this (lunch time) should be increased by two units.

Then test mainly before evening meal and continue to increase the lunch time insulin until the blood glucose levels are in target (between four and seven).

Dose adjustments should be made no more than twice a week.

When you have done the above, you should test your pre meal blood glucose levels throughout the day again for five to seven days and identify the highest column of blood glucose readings once again.

When adjusting your insulin dose we would always recommend that you:

- Only adjust one insulin at a time.
- Look for trends or patterns before adjusting insulin.
- Never adjust your insulin after one raised or low blood glucose reading.
- Adjust your insulin by two units at a time, unless advised otherwise by your diabetes team.

How often should I review my blood glucose results?

Once you have titrated your insulin doses and all your blood glucose levels are mainly within target. You should review your blood glucose readings every week and adjust any insulin doses if needed.

If you are concerned about your blood glucose levels and are unable to bring them to within target. You should contact your family doctor (GP), Practice Nurse or Diabetes Specialist Nurse.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further Information

The Diabetes Centre

Telephone: 0151 706 2829

Text phone number: 18001 0151 706 2829

NHS 111 Tel: 111

Diabetes UK 10 Parkway London NW1 7AA Website www.diabetes.org.uk

The North West Diabetes UK First floor The Boultings Winwick Street Warrington WA2 7TT.

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