



## Insulin Instructions for Basal Bolus Regimen

Two types of insulin are used in this insulin regimen.

Rapid acting insulin or 'bolus'

- This insulin works within 15 minutes and lasts for 4 hours. It helps lower the blood glucose absorbed into the bloodstream from starchy or sugary foods in your meal. These foods should be eaten with each meal.

Long-acting background insulin or 'basal'

- This insulin works over 22-24 hours and keeps the blood glucose stable between meals.

<u>Rapid acting Insulin</u>	Dose	Time	Injection Site
	units	– <b>breakfast</b> omit dose if not eaten	abdomen
	units	– <b>lunch</b> omit dose if not eaten	abdomen
	units	– <b>evening meal</b> omit dose if not eaten	abdomen
<u>Long-acting Insulin</u>			
	units	At ..... am /pm	thigh

## Insulin Administration skills

	Do you feel confident?	Literature given
Blood glucose monitoring	Meter given Y / N Type.....	
Injection Technique Injection Sites	Pen / device Type.....	
Storage of Insulin		
Disposal of sharps		
Symptoms and Treatment of Hypoglycaemia		
Sick day rules		
Driving and DVLA		
Other Information	Travel Medical alert Annual diabetes checks Insulin passport	
Contact Details		
Follow up arrangements		

### Further Information

We endeavour to provide an excellent service at all times, but should you have any concerns please, in the first instance, raise these with the Matron, Senior Nurse or Manager on duty.

If they cannot resolve your concern, please contact our Patient Experience Team on 01932 723553 or email [asp-tr.patient.advice@nhs.net](mailto:asp-tr.patient.advice@nhs.net). If you remain concerned, the team can also advise upon how to make a formal complaint.

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Department: Diabetes

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## Contact numbers for local councils are:

<b>Woking</b> Borough Council	01483 755855
<b>Surrey Heath</b> Borough Council	01276 707100
<b>Guildford</b> Borough Council	01483 505050 or 01483-444499 <a href="mailto:cleansinghotline@guildford.gov.uk">cleansinghotline@guildford.gov.uk</a>
<b>Waverley</b> Borough Council	01483 523333
<b>Spelthorne</b> Borough Council	01784 451499 <a href="mailto:direct.services@spelthorne.gov.uk">direct.services@spelthorne.gov.uk</a>
<b>Runnymede</b> Borough Council	01932 838383
<b>Elmbridge</b> Borough Council	01372 474474 <a href="mailto:envcare@elmbridge.gov.uk">envcare@elmbridge.gov.uk</a>
<b>Hounslow</b> Borough Council	020 8583 5555 <a href="mailto:recycling@hounslow.gov.uk">recycling@hounslow.gov.uk</a>

Further info: <https://www.surreycc.gov.uk/waste-and-recycling>

## Community Diabetes Specialist Nurses

<b>Surrey Area</b>	01932 723315    Mon – Fri Answer phone for messages.
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**Out of hours helpline: Call 111 (when it is less urgent than 999) or GP out of hours service.**

## Check you have the right insulin at the right time

Rapid acting insulin should be given just before the meal.  
Long-acting insulin should be given at the same time each day.

## Preparation

- ✓ Remove the cap.
- ✓ Attach a new needle to the pen.
- ✓ Remove the needle caps.
- ✓ Dial 2 units and do 'air shot' to test pen needle.
- ✓ Dial up the correct dose of insulin.

## Injection

- ✓ Give insulin injection at an angle of 90 degrees into the fat tissue - use a different site each time.
- ✓ Once plunger is completely depressed count to 10 before removing needle
  - This ensures you receive the full dose of the insulin.
- ✓ Replace the big cap before you unscrew needle from pen and dispose of 'sharps' as instructed.

**If you are on insulin, please only take as directed by your health care professional using the device given to you. Insulin should never be withdrawn from a cartridge or pen using a needle or syringe.**

## **Blood glucose monitoring basal bolus insulin regime**

You should check your blood glucose 4 times a day, before meals and at bedtime. When you are first discharged from hospital, you may need to measure your blood glucose more frequently as your home diet and physical activities will be different from the hospital routine.

Your target blood glucose levels are 4.0 - 7.0mmol/L before breakfast. This tells you whether your background or basal insulin is at the right dose to control your blood glucose overnight.

Your target blood glucose readings are..... before lunch and evening meal. If these levels are high, it suggests your insulin doses need to be adjusted. Please seek advice from your GP, practice nurse or diabetes specialist nurse.

Your target blood glucose before bed is above 7.0mmol/L. This measures the post evening meal dose response and helps you to avoid a 'hypo' at night. If blood glucose is less than 6.0mmols/l, please remember to have a snack.

If you check your blood glucose 2 hours after a meal, ideally it will be less than 10.0 mmol/L. This measures the peak of the rapid acting insulin. You can predict a potential 'hypo' if your blood glucose is less than 6.0 mmol/L at this point.

## **Identification**

Ensure that you carry some form of identification that indicates you are on insulin therapy e.g. insulin passport. This enables the right treatment to be given in case of emergency. This can be credit card sized alert message, or medic alert bracelet. The type of insulin you are taking is written on your 'insulin passport'.

## **Disposal of sharps**

A sharp is any needle or lancet that may cause an accidental injury if not disposed of carefully. You should put your blood glucose strips in the sharps box. You should go to your GP to get a prescription for a 'sharps' container. Your Local Authority has the responsibility for arranging the collection and safe disposal of sharps container from patients. They should not be left for normal domestic collection.

## Driving

It is a legal requirement to inform the DVLA that you are on insulin therapy.

- You must inform the DVLA if any problem or diabetic complications develop that may affect your ability to drive safely for example if you are having difficulties recognising hypos.
- For your car insurance to be valid you must inform your insurance company as soon as you are diagnosed with diabetes.

## Prevention and managing hypoglycaemia for driving

- Check your blood glucose before a journey. The DVLA recommend that your blood glucose is **at least** 5 mmols/l prior to driving.
- Never drive for more than one and a half hours without stopping and checking your blood glucose.
- Carry treatment for hypo in the car and at all times. At the first sign of hypoglycaemia
  - Park the car somewhere safely.
  - Take the keys out of the ignition.
  - Check your blood glucose.
  - Treat your hypo with glucose or dextrose tablets and once blood glucose is above 4 mmol/l follow up with starchy food e.g. digestive biscuits.
  - You should not drive for 45 minutes after your blood glucose is above 5mmol/L this is DVLA guidance. Support for hypo management can be sought from your diabetes team.
  - Support for hypo management can be sought from your diabetes team.

Date	Before breakfast	Before lunch	Before evening meal	Before bedtime
Day 1 at home				
Day 2 at home				
Day 3 at home				
Day 4 at home				

## **Insulin Information**

Insulin is used to reduce the glucose levels in the blood to a more normal level. The dose is individualised to each person. A normal level of blood glucose is between 4 - 7mmol/L. Good glucose control is important to help keep you well.

## **Types of Insulin**

There are many different types of insulin available. Whichever insulin you have been prescribed; the early stages of dose adjustment can take time for your blood glucose levels to stabilise. Blood glucose monitoring regularly helps with adjusting your dose of insulin.

## **Storage of Insulin and Equipment**

Usually, disposable insulin pens and pen refills (pen fills) are supplied in a multi pack. Check the expiry date and discard any out-of-date insulin. Insulin that is in current use can be stored at room temperature for up to 4 weeks. The rest of your insulin supply should be stored in the fridge.

## **Prescriptions**

Never allow yourself to run out of insulin. When you have 2 remaining cartridges / disposable pens in the fridge, request a repeat prescription.

Don't forget to ensure you also have enough:

- Insulin pen needles
- Lancets for blood glucose testing
- Test strips for your blood glucose machine

## **Hypoglycaemia (Hypos)**

The symptoms vary from person to person. Information about recognising and managing this is included in your booklet on insulin. A 'hypo' is any blood glucose level less than 4.0 mmol/L. Blood glucose monitoring is an important part of managing insulin as insulin doses may need to be adjusted if diet or activity changes.

## **Hyperglycaemia**

Hyperglycaemia is the medical word for a high blood glucose. If the blood glucose is always in double figures most people will need to adjust their insulin doses. This is tailored to each individual and you will discuss this with your diabetes specialist nurse.

## **Sick Day Rules**

Always continue with your insulin as advised by your diabetes specialist nurse, practice nurse or doctor.

Monitor blood glucose levels 2-4 hourly.

Drink plenty of clear fluids.

Check for ketones if you have Type 1 diabetes and when your blood glucose is greater than 15 mmol/L. If unable to eat, sip slowly at lemonade or similar (check you have a full sugar non diet drink).

If suffering from diarrhoea and or vomiting for more than 24 hours you should seek medical advice.