

Diabetes Department

Patient Information Leaflet (PIL)

Patient Information Sheet: Information for patients new to Insulin (for 16 years and above)



This leaflet is for patients who have recently started on Insulin for managing their Diabetes

You may have been started on Insulin this admission because:

- You have been newly diagnosed with Type 1 Diabetes
- You may need Insulin in addition to medications with Type 2 Diabetes
- You may have another condition where your pancreas is not producing any / enough insulin.

For more information about these conditions, please visit <https://www.diabetes.org.uk>

There are three important skills you need before you are discharged home:

- You must be able to use a blood glucose / ketone meter
- You must be able to dial up the dose, choose an appropriate site and inject your insulin
- You must be familiar and know how to treat a low-blood sugar (less than 4mmols). This is referred to as a “hypo”

If you are unable to manage this yourself, the Ward Nurses will refer you to the District Nurses to help you when you are at home.

Staff will provide you with a glucose meter before you are discharged if you do not already have one. If you have been diagnosed with Type 1 Diabetes or have produced ketones on this admission, you will need a meter that measures both blood and ketones (eg. CareSens Dual).

The points below are to help you manage your Diabetes.

Please visit www.mkuh.nhs.uk/diabetes-care for useful videos, leaflets and links.

Testing blood glucose:

- Always wash your hands before testing blood glucose.
- Check your blood sugars four times daily (before meals and before bed).
- Write the result in your blood glucose diary. (A sample diary is included with this leaflet until you obtain a diary). Your meter will remember your readings but writing them down helps you to see a pattern.

Injection sites:

- Rotate your injection sites ~ see the “Injection Technique Matters” information leaflet
- Check your needle and pen are working by performing a 2 unit ‘air shot’
- Remove your needle after each injection and dispose of it in a yellow sharps bin (you will be given a Sharps bin when you are discharged. Further supplies are available on prescription from your GP)

Insulin Pen:

- Your insulin pen can be left out of the fridge, providing that it is not exposed to extreme hot or cold temperatures.
- NEVER STOP taking your insulin (unless you are instructed to by one of the Diabetes Team)

Dealing with Hypoglycaemia (low blood glucose):

If you have a reading **below 4mmol/l** this is called a “**hypo**” and you may experience the following symptoms:

- shakiness
- dizziness
- headache
- fatigue
- confusion
- weakness

This can occur because of too much insulin, too little food or unplanned exercise. Some people do not get any symptoms. This is called ‘Impaired hypo awareness’. Please let your Diabetes Team know if you do not feel your ‘hypos’.

Treating the Hypo

If your blood glucose level is **below 4mmol/l** you need to take / be given fast-acting glucose (15-20g carbohydrate) **even if you feel well**. Follow the steps below:

1. TAKE FAST ACTING GLUCOSE

For example:

200mls fruit juice
4-5 dextrose tablets
150mls cola (not diet cola)
5 jelly babies
60mls ‘Lift’ GlucoJuice

2. RECHECK BLOOD GLUCOSE AFTER 15 MINUTES

If your blood glucose level remains **below 4mmol/l**, please repeat the step 1 above (take fast acting glucose).

If your blood glucose level is now **above 4mmol/l**, follow step 3 below.

3. HAVE A SMALL SNACK OF A LONGER ACTING CARBOHYDRATE (OR YOUR MEAL IF IT IS DUE)

For example:
A couple of biscuits
A small banana
A slice of bread / toast

Please discuss repeated low blood glucose with your GP / Diabetes Nurse.
If your blood glucose does not rise above 4mmol/l with repeated treatments, seek immediate medical help and continue to repeat step 1 (take fast acting glucose).

You may need help to treat a very low glucose level.

If you are not able to swallow, no-one should put anything in your mouth.

Call 999 if glucose is not responding to treatment.

Relatives can be trained in giving a glucagon injection (a hormone to raise blood glucose) for a severe Hypo. Please contact your Practice Nurse or Diabetes Team for more information.

Dealing with high blood sugars (Ketones):

Sometimes during periods of illness or stress, blood glucose level can be higher than usual even if you are not eating much. You may need more insulin during this time. Please do not stop your insulin when you are unwell.

Ketones are produced when there is not enough glucose entering the cells, because there is not enough insulin in the body. The body then begins to use its fat stores as an alternative source of energy. Ketones can be produced by periods without food, but in patients with Diabetes they are produced when there is a lack of insulin ~ this can lead to a condition called 'Diabetic Ketoacidosis' (DKA).

If you do not have a ketone meter, and you experience any of the symptoms below you must seek emergency medical advice :

- stomach pain
- feeling sick (nausea)
- drowsiness
- vomiting
- deep sighing breaths
- 'pear drop' smell on breath

Check for ketones if :

- your blood glucose is more than 13mmol/l on two consecutive readings
- you have a single blood glucose reading of 17mmol/l
- you feel symptoms of ketones with a normal blood glucose reading

Ketones above 1.5mmol/l may indicate the need for more insulin.

Visit www.mkuh.nhs.uk/diabetes-care for the following educational leaflets of how to adjust insulin when you have ketones in your blood:
Type 1 Diabetes Sick Day Rules
Type 2 Diabetes Sick Day Rules

Certain oral Diabetes medications may be stopped temporarily when you are unwell. If you develop elevated ketone levels with a drug called SGLT2i ('flozins') these will be stopped. (See Type 2 Diabetes Sick Day Rules at www.mkuh.nhs.uk/diabetes-care).

If your ketones are continuing to rise and you are vomiting, you must seek urgent medical assistance.

Driving

If you drive, you will need to have evidence on your meter that you have checked your blood glucose at least 2 hours before driving and every 2 hours whilst on long journeys. If you are a Group 2 driver (LGV/PCV) you will need to inform the DVLA straight away. For information on when to notify the DVLA about starting insulin for Group 1 (car, motorcycle) drivers please see the DVLA guidance leaflet on www.mkuh.nhs.uk/diabetes-care or ask the ward staff to get you a copy from the Diabetes Nurses. This will also give you specific guidance about hypoglycaemia whilst driving.

General Information:

Please contact your GP / Diabetes Practice Nurse for an appointment to review your insulin.

Please attend your Diabetic Annual Review at your GP Practice. This is very important for your health and wellbeing.

Other useful helplines / websites :

For advice and support about Diabetes call 0345 123 2399 or visit

helpline@diabetes.org.uk
www.mkuh.nhs.uk/diabetes-education
<https://www.mkdiabetescare.org.uk>
<https://www.diabetes.org.uk>

Appendix:

Blood Glucose Diary:

Date	Blood Glucose before breakfast	Blood Glucose before lunch	Blood Glucose before dinner	Blood Glucose before bed	During the night (if problems)