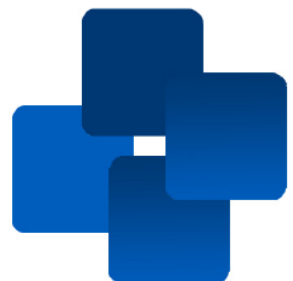


Patient Information

Insulin for Haemodialysis Patients



Renal and Diabetes Departments



Who is this leaflet for?

This leaflet is for people with diabetes who require insulin and who are treated with haemodialysis for renal failure. The aim of this leaflet is to explain a little more about hypoglycaemia (hypos), what this involves and what you should expect around dialysis. If you have any further questions after reading this leaflet, please ask your dialysis nurse.

What is hypoglycaemia (hypos)?

Hypoglycaemia is the medical term for low blood glucose. If your blood glucose falls below 4mmol/L, you are having a **hypo**.

It is important to keep your blood glucose level stable, which is a balance between:

- the glucose you take in from food and drink
- the glucose you use up with exercising, and
- the glucose lowering effect of insulin, tablets or treatments, such as haemodialysis

Please note: **blood glucose** and **blood sugar** are the same thing.

What are the signs of a hypo?

Early signs of a hypo include:

- sweating
- feeling dizzy
- feeling irritable
- trembling and shaky
- tingling of the lips
- blurred vision

Symptoms vary between person to person. If you miss these early signs, the symptoms may get worse, such as:

- slurring your words
- behaving oddly
- being unusually aggressive or tearful
- headache or confusion

What can cause a hypo?

Below are the things to consider when exploring the causes of hypoglycaemia:

- Eating too little, especially at bedtime as there is such a long gap between meals overnight.
- Drinking alcohol, especially on an empty stomach.
- If you do more exercise or activity than usual, your blood glucose level may drop.
- Poor insulin injection technique – if the insulin is injected into the skin or muscle instead of fat, the insulin will not be absorbed correctly at the correct time and could cause hypoglycaemia many hours later.
- Dialysis can affect blood glucose levels especially in the last hour of dialysis.

How to avoid hypos

- Do not miss meals.
- Take your insulin at recommended doses and times.
- Keep to recommended alcohol limits and do not drink on an empty stomach.
- Test your blood glucose level before driving and do not drive if it is less than 5mmol/L.
- Always carry glucose, snacks and your blood glucose meter.
- You may need to reduce insulin doses before and after exercise and around dialysis.
- Insulin or some oral hypoglycaemic agent doses may need to be reduced in those with a HbA1c <58mmol/mol (7.5%) to avoid hypos.
- Speak to your dialysis nurse, diabetes specialist nurse, GP or practice nurse about insulin doses on dialysis and non-dialysis days.

How to treat a hypo

If you recognise that you are having a hypo, treat it immediately with something to raise your blood glucose quickly, such as:

- 5-6 dextrose tablets, **OR**
- 4 large jelly babies

Check your blood glucose again in 15 minutes and if still below 4mmol/L have a starchy snack or eat your meal if it's due.

When you start to feel better have a good snack, e.g. 2 plain digestive biscuits or a sandwich.

Always carry dextrose tablets or sugar with you.

Keep a record of any hypos you have and speak to your diabetes nurse or doctor to work out if there is a cause and to stop it happening again.

Hypos and dialysis

Dialysis itself can affect blood glucose levels, so the advice is:

- Test your blood glucose levels before **and** after each dialysis session.
- If blood glucose levels are below 7mmol/L at the start of dialysis 20-30g of carbohydrate should be eaten. Two digestive biscuits are recommended.
- Remember to bring glucose and snacks to each dialysis session.
- Insulin doses should be reviewed and often need to be reduced on dialysis days - speak to your diabetic or renal team.

Please see pages 6/7 for examples of how to manage your blood glucose levels before and after dialysis - speak to your diabetic specialist nurse or renal nurse for advice.

How to manage insulin

On rapid acting insulin:	On premixed	
<p>Reduce your usual <u>breakfast</u> (if morning dialysis) <u>lunchtime</u> (if afternoon dialysis) or evening insulin <u>dialysis</u> dose by 10-15%</p>	<p>Reduce your <u>with breakfast</u> <u>afternoon</u> dialysis <u>your evening</u> starting even</p>	
<p>BLOOD GLU</p>		
<p>+</p>	<p>Pre-dialysis BG <7mmol/L</p> <ul style="list-style-type: none"> • Eat 2 digestive biscuits • Recheck BG • BG just before finishing dialysis • May need a carbohydrate snack Before end of dialysis 	<p>Pre-dialysis BG 7-15 mmol/L</p> <p>No action required</p>

Speak to your diabetic specialist

doses on dialysis days

On biphasic insulin:

Reduce your dose by 10-15%
in the morning and with
your meal (if
finishing dialysis)

On long acting insulin:

Reduce your dose by 25%
in the morning or in the
evening of dialysis

COSE

BG 7-15 mmol/L Just before finishing dialysis No action required	BG > 15mmol/L Just before finishing dialysis Monitor BGs and seek advice from GP or Diabetes Specialist Nurse if persistently high

nurse or renal nurse for advice.

Contact Telephone Numbers

Lister Haemodialysis Unit	☎ 01438 284152
St Albans Haemodialysis Unit	☎ 01727 897588
Luton & Dunstable Haemodialysis Unit:	☎ 01582 497538
Bedford Renal Unit	☎ 01438 286750
Harlow Renal Unit	☎ 01279 278205

Record the name and telephone number of the healthcare professional who helps you look after your diabetes:

Name: _____

Telephone number: _____

Further Information

- ◆ **NHS 111** - Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day - dial 111
- ◆ **Diabetes UK** - www.diabetes.org.uk
- ◆ **Patient view** - This is individualised online information which is available to you to:
 - Find out your latest blood results
 - Read your letters from the renal unit

To find out more, please ask for a leaflet from your dialysis nurse or visit www.patientview.org

Date of publication: June 2019
Author: Clare Morlidge
Reference: Version: 01
Review Date: June 2022
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