



**University
Hospitals Sussex**
NHS Foundation Trust

Blood glucose monitoring

Before and after bariatric surgery

Patient information

What is this information about?

This information is about how you check your blood glucose (also called blood sugar) levels before your bariatric (weight loss) operation and for the six weeks afterwards. It tells you how to keep your blood glucose at a safe level:

- if you're taking medicines for diabetes.
- when you're on a special diet to help you lose weight before your operation.

Can bariatric surgery improve my Type 2 Diabetes?

Yes. Having a bariatric operation means many people's diabetes improves or even disappears completely. This is known as 'being in remission'. If you're in remission you may be able to change or stop taking your diabetes medicines. This improvement may not last forever.

Monitoring your blood glucose (HbA1c) and keeping it within your target ranges

What do the results of an HbA1c test show?

A HbA1c test is used by doctors to see your average glucose levels over three months. It is not the same as a finger-prick test.

What level of HbA1c shows that my diabetes is in remission?

A HbA1c of below 48mmol/mol (or below 6.5%) for at least three months, when you're not taking medicine for your diabetes, shows that you are in remission.

Is it important to check my blood glucose before and after your operation with a finger-prick test?

Yes, it is really important to check your blood glucose before and after your operation with a finger-prick test.

What range should my blood glucose levels be within?

Your blood glucose levels should be:

4 to 6 mmol/L before meals or 7 to 9 mmol/L 2-hours after meals.

What equipment must I have to do my finger- prick blood glucose tests?

You must have a blood glucose meter and testing strips. If you don't have these, please ask someone at your GP surgery to help you get them.

What do I need to know about my preoperative diet?

Will I need to go on a diet before I have my bariatric operation?

Yes. You'll need to follow a special diet called the Liver Reducing Diet (LRD).

What is the Liver Reducing Diet (LRD)?

The LRD is a milk diet that's recommended before your bariatric surgery that you'll need to follow for 2 weeks. We will give you more information about this in a separate leaflet.

Why is it important for me to be on the LRD?

Because you're having less calories and carbohydrate, the LRD should make your liver smaller. That's important because when your liver's smaller it's easier for your surgeon to do your operation safely and effectively and with less risk of complications.

When will I start my LRD?

You'll have an appointment with the Bariatric team before your operation (pre-op appointment). At this appointment you'll be told when to start your LRD.

What must I bring to my pre-op appointment?

You must bring a list of all the medicines, and the doses that you're taking, to your pre-op appointment. In your appointment you'll be given any advice on your medicines that you need.

Monitoring your blood glucose while you're on the LRD

How often, and when, should I check my blood glucose when I'm on the LRD?

Check your blood glucose at least twice a day but ideally four times a day. You should check it before you have milk or food.

What should I do if I'm on the LRD and taking insulin?

If you are on insulin, make sure you have some fast-acting carbohydrate foods that can treat low blood glucose ('hypo' or hypoglycaemia) with you. There are some listed on page 5.

Why is it important to check my blood glucose if I'm taking insulin?

It is important to check that:

- your blood glucose levels are safe and that they stay in your target range.
- The changes in your diabetes medication you've been asked to make are working for you. This is very important if you are on insulin.
- Your blood glucose level doesn't fall too low and give you a 'hypo' (hypoglycaemia).

A 'hypo' is a blood glucose level less than 4 mmols/L

How to treat a 'hypo' if you have one when you're on the LRD or after surgery

What should I do if I'm having a 'hypo' (hypoglycaemia)?

Follow these steps:

STEP 1 – Take fast acting carbohydrates.

Take **ONE** of the following: (15 to 20g glucose)

- 5 to 6 Lift tablets (available at chemist).
- 6 to 7 dextrose tablets (available at chemist).
- 1 x Lift Glucose shot (available at chemist).
- 1 x dextrose drink (available at chemist).
- 3 to 4 heaped teaspoons of sugar dissolved in water.

STEP 2 - Wait 10 to 15 minutes and recheck your blood glucose

- If your blood glucose is still below 4mmol/L repeat **STEP ONE**.
- If your blood glucose is above 4mmol/L move to **STEP ONE**.

STEP 3 - Long acting carbohydrates

Take **ONE** of the following depending on which stage of food you are on: (15 to 20g slow-release carbohydrate)

- **Liquid (LRD) diet:** Sip 300ml milk.
- **Puree diet (stage 1):** Mash one small-medium banana and blend this with a small amount of milk.
- **Soft diet (stage 2):** One small to medium banana, half a cup of mashed potato OR one slice of toast.
- **Normal diet (stage 3):** one slice of toast, one cereal bar OR four savoury oat cakes.

Monitoring your blood glucose after your operation

Which common symptoms might mean that I have high blood glucose?

Any of these symptoms could mean that your blood glucose is high:

- Feeling very thirsty.
- Urinating a lot.
- Feeling very weak or tired.
- Blurred vision.

If I'm taking insulin, should I check my blood glucose levels more frequently?

Yes. Check your blood glucose levels before, and after, you've had food for at least the first six weeks after your operation.

What blood glucose levels should I aim for?

Aim for: **blood glucose of 4 to 6 mmol/L before food.**
 blood glucose of 7 to 9 mmol/L 2 hours after food.

Should I write down the blood glucose levels that I take?

Yes. Write your glucose levels down along with the dates and times of when you checked them. Show them to your diabetes nurse at your GP surgery or bring them to your bariatric appointment so we can tell how safe your blood glucose levels are for you.

What should I do if my blood glucose levels are regularly too high or too low?

Contact your diabetes team if your blood glucose levels are regularly above 10mmol/L or below 4mmol/L.

How often should I have my HbA1c checked at my GP surgery?

You should have your HbA1c checked every 3 to 6 months at your GP surgery.

If my diabetes is in remission, do I still need my annual diabetes review appointment?

Yes, you must still have your diabetes yearly review. This is important as the review includes checks of your eyes and feet to ensure that they stay in good condition and checks that you are healthy.

How can I contact you for help or advice?

Please try to contact your practice nurse first. If they are unable to help, contact the Bariatric Office on **01243 831655**.

The office is open from 8am to 4pm, Monday to Friday.

There's an answerphone system for you to leave a message.

We'll try to get back to you within 1 to 3 working days.

What should I do if I'm unwell or think I need urgent care?

You should call your GP, **111, 999** or go to your local hospital.

If you go to your hospital please take a copy of your hospital discharge summary with you.

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