A guide to Blood Glucose (sugar) Monitoring

Patient Information Leaflet

Your blood glucose will be tested at your regular diabetes check up. A blood test called ‘HbA1c’ provides information about your blood glucose control over a three month period. Your diabetes healthcare team should discuss your result and target with you.

You may be asked to monitor your blood glucose levels over a short period of time, such as:

- when you are first diagnosed with diabetes
- if you have symptoms of a low blood glucose
- if you are prescribed steroid tablets or steroid injections
- if you have Type 2 diabetes and you are planning a pregnancy
- if you are pregnant
- if you have gestational diabetes (diabetes during pregnancy)
- to let you know how your blood glucose levels are affected by a change in medication, what you eat and/or how active you are.

Long term use of blood glucose monitoring is recommended in the following:

- people with Type 1 diabetes
- people treated with insulin
- people with Type 2 diabetes treated with certain tablets, who exercise strenuously on a regular basis and with certain occupations (such as long-distance driving)

The benefit of blood glucose testing in people with non insulin treated Type 2 diabetes is unclear. Some research studies show that self monitoring can be associated with an increase in anxiety levels.

Testing advice

Your diabetes healthcare team will discuss and agree with you when and how often to test your blood glucose levels and who to report your results to. It may not be necessary to check your blood glucose level every day.

Treatment with insulin

You will be asked to test your blood glucose levels more regularly when you first start on insulin. If the results are within your agreed target range then you may be able to reduce the number of tests. You will be provided with the appropriate advice to suit your own circumstances when you see your diabetes nurse or doctor. If your blood glucose levels are outwith target you may need to adjust your insulin. Guidelines are available to help you assess why your blood glucose levels are outwith target in our leaflet “Insulin Adjustment” available on Diabetes MCN website or from your diabetes healthcare team. Contact your diabetes healthcare team for advice if necessary.

Treatment with tablets

If you are treated with tablets for diabetes, you may not need to test your glucose levels; or, depending on the type of tablets you are taking and your individual circumstances, you may be asked to check it occasionally. Your healthcare team will advise you on what is appropriate for you.

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**If you are testing, further advice for both treatment with insulin and tablets**

- Remember to test more often if you are ill. If your blood glucose levels are outwith your targets then contact your diabetes healthcare team for advice. Further information is available in our leaflets “Sick Day Rules” available on [Diabetes MCN website](https://www.diabetesmcn.org) or from your diabetes healthcare team.
- Test more often if your treatment has changed.
- **If your blood glucose levels are outwith your targets consistently this can indicate that your diabetes is not well controlled with your current management. Please report to your diabetes healthcare team for advice.**
- Test your blood glucose level before driving and during your journey. Further information is available in our leaflet “Diabetes and Driving” available on [Diabetes MCN website](https://www.diabetesmcn.org) or from your diabetes healthcare team.
- Always remember to wash your hands before you do a test.
- Always ensure your test strips are ‘in date’.
- Use a new strip and lancet for each test and dispose of them safely.
- Follow the manufacturer’s instructions.
- Complete and return the warranty card issued with your meter.
- Diaries can be obtained from the meter company, or from the hospital diabetes clinic or your GP surgery, to record your results.

**Why are blood glucose levels sometimes high?**

An occasional high blood glucose level from time to time is impossible to avoid. The reason for high blood glucose levels can include:

- Infection
- Certain foodstuffs for example cakes, biscuits, some sauces
- Stress
- Treatment with steroids
- Insufficient insulin or medication
- Problem with injection technique or injection sites

If the trend in your blood glucose level is above your target, or if you are ill, you can contact your healthcare professional for advice. Further information is available in our leaflets “Sick Day Rules” available on [Diabetes MCN website](https://www.diabetesmcn.org) or from your diabetes healthcare team. You may require advice about lifestyle or a change in your medication.

**Why are blood glucose levels sometimes low?**

The reason for low blood sugar levels can include:

- Missed or delayed meals
- Not enough or no carbohydrate (bread, pasta, rice, potato, cereal type foodstuffs) in meals
- Too much insulin or diabetes medication
- Increased or unexpected exercise
- Alcohol
- Problem with injection technique or injection sites

Low blood glucose levels (below 4 mmol/L) are undesirable and unsafe and you need to act promptly if this happens to you. Further information is available in our leaflet “Having a Hypo” available on [Diabetes MCN website](https://www.diabetesmcn.org) or from your diabetes healthcare team. You may need a change in your insulin or diabetes medication or advice about lifestyle to avoid problems with low blood glucose levels.

If you need this information in another language or format, please contact the NHS Lanarkshire General Enquiry Line on 0300 3030 243 or e-mail info@lanarkshire.scot.nhs.uk.

[Diabetes MCN website](https://www.diabetesmcn.org)